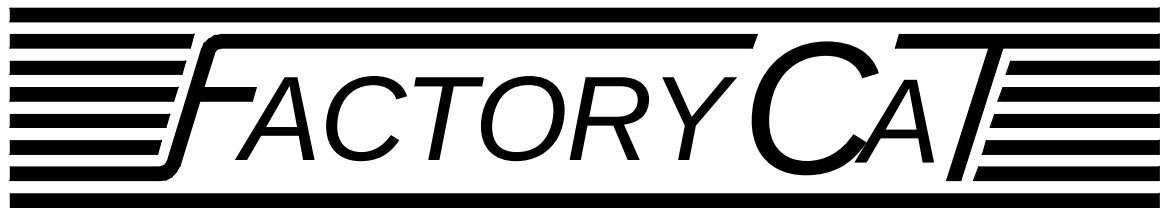
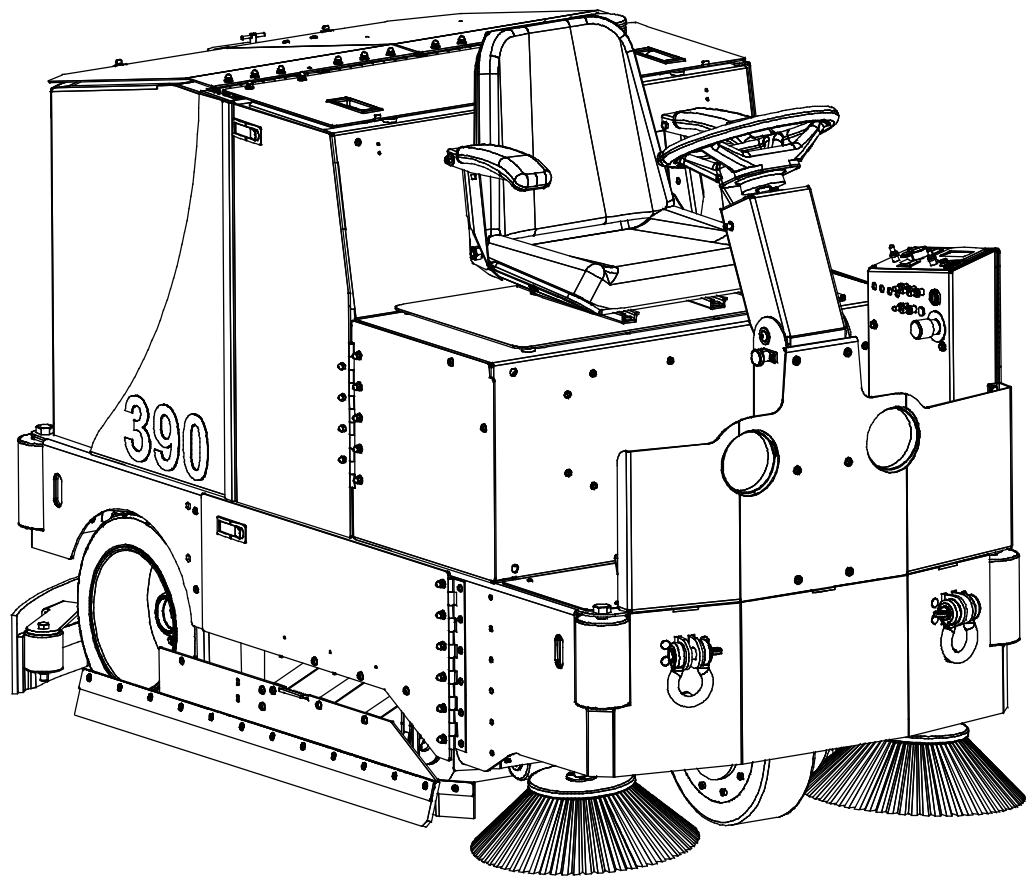


390/420 SERIES 430/490/550 SERIES



Operator and Parts Manual

VERSION 4.0



R.P.S. Corporation
P.O. Box 368
Racine, Wisconsin 53401

Phone: 1-800-634-4060
Fax: 1-866-901-3335

www.factorycat.com



RIDER SCRUBBERS

FACTORY CATS ARE DESIGNED TO CLEAN MACHINE SHOPS, FOOD/BEVERAGE MANUFACTURING OR PACKAGING, DISTRIBUTION -WHILE STANDING UP TO THE RIGORS OF CONTRACT CLEANING.

WITH TWO SPECIALIZED CLEANING SYSTEMS TO CHOOSE FROM, FACTORY CATS OFFER THE PERFORMANCE AND CAPACITY REQUIRED TO CLEAN YOUR UNIQUE APPLICATION.

THE "DISK" MACHINES, WITH 39" to 55" SCRUB PATHS, OFFER A GIMBALED BRUSH DRIVE AND 35% - 80% MORE SCRUBBING POWER THAN COMPETITIVE BRANDS.

THE "CYLINDRICAL" MACHINES, OFFER ALL THE PERFORMANCE OF DISK SCRUBBERS PLUS THE ABILITY TO SWEEP. THE CYLINDRICAL PICKS UP WOODCHIPS, NAILS, BROKEN GLASS, GRAVEL, AND METAL CHIPS. THE DEBRIS IS HELD IN THE SLIDE-OUT HOPPER WHICH PERMITS EASY DISPOSAL.

PRODUCTIVITY IS A FUNCTION OF SCRUB WIDTH, RUN TIME AND TANK CAPACITY. THESE FACTORY CATS TOP THE CHART, WHILE MAINTAINING UNSURPASSED MANUEVERABILITY. WITH LARGER TANKS, WIDER SCRUB PATHS, HIGHER SCRUBBING PRESSURES, MORE VACUUM, AND WITH BIGGER BATTERY PACKS YOU WILL HAVE LESS STOPPING TO REFILL, FEWER TRIPS DOWN THE AISLE, LESS DOUBLE SCRUBBING, DRY SAFE CLEAN FLOORS, AND EXTRA RUN TIME.

THE OPERATOR SITS IN A SPRING- SUSPENSIONED, FULLY ADJUSTABLE, MID-BACK CHAIR. THE STEERING COLUMN HAS FOUR SETTINGS, FURTHER ENHANCING OPERATOR COMFORT. HEADLIGHT, HORN, BACKUP ALARM, AND ARMRESTS ARE STANDARD. OPERATORS ARE ABLE TO TURN WITHIN A 84" AISLE, WHILE MAINTAINING EXCELLENT WATER CONTROL. WE ALSO OFFER, FOR CLEANING IN REMOTE AREAS, A COMPLETE LINE OF HAND TOOLS, INCLUDING VACUUM WANDS, SPRAY HOSES, AND POWERED SCRUB WANDS.

FACTORY CATS EXCLUSIVE "CENTRAL COMMAND II" ENERGY MANAGEMENT SYSTEM OFFERS AUTOMATIC CONTROLS. WHEN THE OPERATOR STOPS THE MACHINE, BRUSHES, AND SOLUTION FLOW STOPS, THE SAFETY-SET PARKING BRAKE IS APPLIED, AND THE VACUUM STOPS AFTER A 40 SECOND DELAY. ALL "CENTRAL COMMAND II" COMPONENTS, INCLUDING THE CONTROLLER, MANUAL RESET CIRCUIT BREAKERS, AND MARINE DUTY SWITCHES, ARE IN A SEALED MODULE.

FACTORY CATS USE THE MOST POWERFUL MOTORS AVAILABLE, SO THEY ARE TYPICALLY RUN AT ONLY 50% OF THEIR CAPACITY. THIS LEAVES POWER IN RESERVE FOR TIMES WHERE HEAVY STRIPPING IS REQUIRED, AND GREATLY PROLONGS MOTOR LIFE. THESE FACTORY CATS ARE CONSTRUCTED OF HEAVY GAUGE STEEL, AND SPECIALLY PLATED OR POWDER PAINTED TO PROTECT YOUR INVESTMENT. THE STAINLESS STEEL TANKS HAVE EXTRA THICK WALLS. STEEL BUMPERS PROTECT THE SCRUBHEAD AND FRONT END FROM COLLISION DAMAGE. THE CORNER ROLLERS ARE POLYURETHANE, AND TALL TO DISPERSE THE FORCE OF IMPACT WITHOUT LEAVING MARKS ON YOUR WALLS. THE WHOLE MACHINE IS PUT TOGETHER WITH STAINLESS STEEL FASTENERS TO HELP PROLONG THE LIFE AND DURABILITY OF YOUR MACHINE.

HOW TO USE THIS MANUAL

This manual contains the following sections:

- HOW TO USE THIS MANUAL
- SAFETY
- OPERATIONS
- MAINTENANCE
- PARTS LIST

The HOW TO USE THIS MANUAL section will tell you how to find important information for ordering correct repair parts.

Parts may be ordered from authorized Factory Cat dealers. When placing an order for parts, the machine model and machine serial number are important. Refer to the MACHINE INFORMATION page which is filled out during the installation of your machine. The MACHINE INFORMATION is located on page one of this manual.

The serial number of your machine is located on the lower steering pedestal of the steering column of the machine. (See Picture Below)



The SAFETY section contains important information regarding hazard or unsafe practices of the machine. Levels of hazards are identified that could result in product or personal injury, or severe injury resulting in death.

The OPERATIONS section is to familiarize the operator with the operation and function of the machine.

The MAINTENANCE section contains preventative maintenance to keep the machine and its components in good working condition. They are listed in this general order:

- Batteries
- Scrub Brushes
- Adjusting Squeegee
- Service Schedule
- Machine Trouble shooting

The PARTS LIST section contains assembled parts illustrations and corresponding parts list. The parts lists include a number of columns of information:

- ITEM - column refers to the reference number on the parts illustration.
- PART NO. - column lists the part number for the part.
- QTY - column lists the quantity of the part used in that area of the machine.
- DESCRIPTION - column is a brief description of the part.
- COMMENTS - column for information not noted by the other columns.

NOTE: If a service or option kit is installed on your machine, be sure to keep the KIT INSTRUCTIONS which came with the kit. It contains replacement part numbers needed for ordering future parts.

TABLE OF CONTENTS

PARTS BREAKDOWN ILLUSTRATION

TABLE OF CONTENTS	PAGE 1	FRAME BOTTOM	PAGE 26-27
WARRANTY REGISTRATION FORM	PAGE 2	STEERING TOWER ASSEMBLY	PAGE 28-29
MACHINE SPECIFICATIONS	PAGE 3	SEATING AREA ASSEMBLY	PAGE 30-31
COMMON WEAR PARTS/SCRUB BRUSHES	PAGE 4-1 - 4-2	BATTERY COMPARTMENT	PAGE 32-33
SAFETY MESSAGES	PAGE 5	TANK ASSEMBLIES	PAGE 34-35
!!SAFETY PRECAUTIONS!!	PAGE 6	STEERING /TRACTION ASSEMBLY	PAGE 36-37
MACHINE FEATURES AND CONTROLS	PAGE 7-8	SIDE DOOR & WIPER ASSEMBLY	PAGE 38-39
LCD SCREEN MENU DISPLAYS	PAGE 9	ACTUATOR SLIDE ASSEMBLY	PAGE 40-43
MACHINE SETUP & ATTACHING SQUEEGEE	PAGE 10	SQUEEGEE ASSEMBLY	PAGE 44-45
ADJUSTING SQUEEGEE & CASTERS	PAGE 11	SIDE BROOM ASSEMBLY	PAGE 46-47
VACUUM BOX SYSTEM	PAGE 12	CYLINDRICAL ARM ASSEMBLY	PAGE 48-49
SOLUTION SYSYTEM	PAGE 13	CYLINDRICAL ASSEMBLY	PAGE 50-51
SIDE BROOM SYSTEM	PAGE 14	DISK SCRUBHEAD ASSEMBLY	PAGE 52-53
ATTACHING DISK & CYLINDRICAL BRUSHES	PAGE 15	CENTRAL COMMAND II COMPONENTS	PAGE 54-55
MACHINE OPERATION	PAGE 16-17	DOOR/WIPER/ROLLER ASSEMBLY	PAGE 56-57
DRAINING RECOVERY & SOLUTION TANKS	PAGE 17	SCRUBHEAD LIFT ASSEMBLY	PAGE 58-59
BATTERY CHARGING	PAGE 18	SIDE BROOM WATER OPTION	PAGE 60-61
MAINTENANCE & STORING MACHINE	PAGE 19-1 - 19-3	SPRAYJET SYSTEM	PAGE 62-63
PREVENTATIVE MAINTENANCE RECORDS	PAGE 20-21	BATTERY/CHARGER AUTHORIZED	
TOUBLESHOOTING CENTRAL COMMAND II	PAGE 22-23	SERVICE CENTERS BY STATE	
TROUBLESHOOTING	PAGE 24-25		
MACHINE PARTS	PAGE 26-55		

MACHINE INFORMATION

PLEASE FILL THIS AREA OUT AT THE TIME OF INSTALLATION FOR FUTURE REFERENCE.

MODEL NUMBER _____

SERIAL NUMBER: _____

INSTALLATION DATE: _____

INSTALLING DEALER: _____

DEALER CONTACT: _____

ADDRESS: _____

CITY, STATE, ZIP: _____

PHONE NUMBER: _____

THIS OPERATOR AND PARTS MANUAL SHOULD BE CONSIDERED A PERMANENT PART OF THE UNIT AND SHOULD REMAIN WITH THE UNIT AT ALL TIMES. THIS OPERATOR AND PARTS MANUAL COVERS ALL THE 390 & 430 SERIES SCRUBBERS. YOU MAY FIND DESCRIPTIONS AND FEATURES THAT ARE NOT ON YOUR PARTICULAR MODEL. THE INFORMATION AND SPECIFICATIONS INCLUDED IN THIS PUBLICATION WERE IN EFFECT AT THE TIME OF PRINTING. R.P.S. CORP RESERVES THE RIGHT TO MAKE CHANGES WITHOUT NOTICE INCURRING ANY OBLIGATION.

TO REGISTER FOR WARRANTY, FAX YOUR WARRANTY REGISTRATION FORM TODAY!

FAX # (886)-901-3335



R.P.S. CORPORATION
P.O. BOX 368
RACINE, WI 53401
PHONE: 800-634-4060
FAX 866-901-3335
WWW.FACTORYCAT.COM

WARRANTY REGISTRATION FORM

COMPLETE FORM IMMEDIATELY AND FAX BACK TO (886)901-3335

DISTRIBUTOR: _____

SERIAL NUMBER: _____

LOCATION (CITY, STATE): _____

INSTALL DATE: _____

CUSTOMER: _____

HOURLY METER: _____

CONTACT: _____

INSTALLED BY: _____

ADDRESS: _____

CITY: _____ STATE _____ ZIP _____

PHONE: _____ FAX: _____

FACTORY CAT MODEL NUMBER: _____

OPTIONS: 1. _____

4. _____

2. _____

5. _____

3. _____

6. _____

PADS: _____

BRUSHES: _____

SQUEEGEE SIZE: _____

SIDE BROOMS: _____

BUYER'S REPRESENTATIVE HAS:

1. RECEIVED INSTRUCTION IN PROPER OPERATION OF THIS MACHINE.
2. RECEIVED OPERATOR'S MANUAL FOR THIS MACHINE.
3. BEEN MADE AWARE THAT ANY OPERATOR SHOULD READ THE MANUAL BEFORE OPERATING THIS MACHINE.

DISTRIBUTOR REP. PRINT: _____

SIGN: _____

CUSTOMER PRINT: _____

SIGN: _____

SPECIFICATIONS

390 SERIES

430 SERIES

BODY CONSTRUCTION

Frame Construction (Steel):
Drive Wheel (diameter x width):
Rear Wheels (diameter x width):
Dimensions (L x W x H)
Width (squeegee):
Weight (w/out batteries):

½", ¼", 7-ga
14" x 5"
16" x 7"
78" x 38" x 55"
48" or 58"
2,491 pounds

½", ¼", 7-ga
14" x 5"
16" x 7"
84" x 43" x 57"
58" or 65"
2,794 pounds

BRUSH/PAD SYSTEM

Brush Pressure:
Pressure Settings:
DISK
Brush/Pad Size:

0-450 pounds
5, w/ auto adjust

390: (2) 20"
420: (2) 23"

0-450 pounds
5, w/ auto adjust

430: (2) 23"
490: (3) 17"
550: (3) 19"

Scrubbing Power:
Brush Speed:

3.0 hp
350 rpm

3.0 – 4.5 hp
350 rpm

CYLINDRICAL

Brush Diameter Size:
Scrubbing Power:
Brush Speed:

(2) 9"
3.0 hp
450 rpm

(2) 9"
3.0 hp
450 rpm

SIDE BROOM SYSTEM

Side Broom Size:
Side Broom Power:
Sweep Path:

(2) 17"
(2) 0.3 hp
46"

(2) 17"
(2) 0.3 hp
51"

BATTERY SYSTEM

Battery AH Rating:
Battery Run Time:

Up to 400 Ah
Up to 6 hours

Up to 1,000 Ah
Up to 8 hours

SOLUTION SYSTEM

Tank Material:
Solution Tank Capacity:
Solution Flow Rate:
Solution Filter:

304 Stainless
61-gallons
0 - 1.75 gal/min.
Inline / Stainless

304 Stainless
75-gallons
0 - 1.75 gal/min.
Inline / Stainless

RECOVERY SYSTEM

Tank Material:
Recovery Tank Capacity:
Vacuum Motor Power:
Water Lift:
Airflow (cubic feet / min):
Squeegee Vacuum Hose:
Recovery Drain Hose:

304 Stainless
61-gallons
1.5 or 3.0 hp
95 inches
104 cfm
2.5' diameter
2" diameter

304 Stainless
75-gallons
3.0 hp
95 inches
205 cfm
2.5" diameter
2" diameter

DRIVE SYSTEM

Transaxle Description:
Power:
Forward Speed:
Reverse Speed:

All-Gear, sealed
4.0 hp
0 – 5 mph
0 – 3 mph

All-Gear, sealed
8.0 hp
0 – 6 mph
0 – 3 mph

COMMON WEAR PARTS

<u>ITEM</u>	<u>MODEL</u> <u>390-D</u>	<u>MODEL</u> <u>420-D</u>	<u>MODEL</u> <u>430-D</u>	<u>MODEL</u> <u>490-D</u>	<u>MODEL</u> <u>550-D</u>
<i>BRUSH TYPE</i>	<i>DISK (2)</i>	<i>DISK (2)</i>	<i>DISK (2)</i>	<i>DISK (3)</i>	<i>DISK (3)</i>
<u>BRUSHES</u>					
SUPER-GRIT	20-421SS	23-421SS	23-421SS	17-421SS	19-421SS
TOUGH-GRIT	20-421S	23-421S	23-421S	17-421S	19-421S
MIDI-GRIT	20-421C	23-421C	23-421C	17-421C	19-421C
LIGHT-GRIT	20-421PS	23-421PS	23-421PS	17-421PS	19-421PS
POLY (.028)	20-421P	23-421P	23-421P	17-421P	19-421P
NYLON (.016)	20-421N	23-421N	23-421N	17-421N	19-421N
PAD DRIVER	20-421D	23-421D	23-421D	17-421D	19-421D
<u>PADS</u>					
SUPER BLACK	20-422BB	23-422BB	23-422BB	17-422BB	19-422BB
BLACK	20-422B	23-422B	23-422B	17-422B	19-422B
BROWN	20-422BR	23-422BR	23-422BR	17-422BR	19-422BR
GREEN	20-422G	23-422G	23-422G	17-422G	19-422G
BLUE	20-422BL	23-422BL	23-422BL	17-422BL	19-422BL
RED	20-422R	23-422R	23-422R	17-422R	19-422R
WHITE	20-422W	23-422W	23-422W	17-422W	19-422W

EXTRA PAD DRIVER RETAINING CLIP: 40-433

BRUSH REPAIR KIT: 40-423 REPLACEMENT LOCATING CLIP FOR ALL DISK BRUSHES

	<u>MODEL</u> <u>390-C</u>	<u>MODEL</u> <u>420-C</u>	<u>MODEL</u> <u>430-C</u>	<u>MODEL</u> <u>490-C</u>
	CYLINDRICAL (2)	CYLINDRICAL (2)	CYLINDRICAL (2)	CYLINDRICAL (2)
TOUGH-GRIT	390-521S	40-521S	40-521S	490-521S
MIDI-GRIT	390-521C	40-521C	40-521C	490-521C
LIGHT-GRIT	390-521PS	40-521PS	40-521PS	490-521PS
NYLON (.016)	390-521N	40-521N	40-521N	490-521N
<u>SQUEEGEE KITS</u>		<u>GUM RUBBER</u>	<u>LINATEX</u>	
	<u>SIZE</u>			
	48" (SINGLE VAC)	390-770G	390-770L	
	48" (DUAL VAC)	390-790G	390-790L	
	58"	430-770G	430-770L	
	68"	490-770G	490-770L	

KIT INCLUDES: (1) REAR BLADE, (1) FRONT BLADE.

NOTE: IT IS STAMPED INTO THE TOP OF THE SQUEEGEE BLANK.

MODEL 390: HAS A 48" SQUEEGEE UNLESS OTHER SIZE IS SPECIALLY ORDERED AT TIME OF PURCHASE.

MODEL 420: HAS A 48" SQUEEGEE UNLESS OTHER SIZE IS SPECIALLY ORDERED AT TIME OF PURCHASE.

MODEL 430: HAS A 58" SQUEEGEE UNLESS OTHER SIZE IS SPECIALLY ORDERED AT TIME OF PURCHASE.

MODEL 490: HAS A 58" SQUEEGEE UNLESS OTHER SIZE IS SPECIALLY ORDERED AT TIME OF PURCHASE.

MODEL 550: HAS A 68" SQUEEGEE UNLESS OTHER SIZE IS SPECIALLY ORDERED AT TIME OF PURCHASE.

NOTE: THE SMALLER SQUEEGEES ARE DESIGNED FOR NARROW AISLES AND MAY NOT HAVE THE SAME WATER CONTROL AROUND TIGHT TURNS AS THE LARGER SQUEEGEES.

CALL YOUR LOCAL DEALER FOR MORE SOAP INFORMATION

SCRUB BRUSHES

There are many different types of brushes available to cover applications from cleaning heavily soiled floors to polishing. A pad driver is also available to take advantage of the many cleaning pads on the market. Please refer to the following to assist in selecting the proper brush or pad for the work at hand.

Fig. 5

BRUSH TYPE	DISK	CYLINDRICAL	LEVEL (10 The highest)		COLOR
Super-Grit	##-421SS	NA	Very High	10	Red/Orange
Tough-Grit	##-421S	##-521S	High	9	Black
Midi-Grit	##-421C	##-521C	High	8	Blue/Grey
Light-Grit	##-421PS	##-521PS	Moderate	6	Grey
Poly (.028)	##-421P	NA	Moderate	5	Black
Nylon (.012)	##-421N	##-521N	Light	2	White
Tampico	##-421T	##-521T	Light	1	Tan
Pad Driver	##-421D	NA	Not Applicable		NA

PADS	DISK	CYLINDRICAL	LEVEL (10 The highest)		COLOR
Super Black	##-422BB	NA	Very High	10	Black
Black	##-422B	NA	High	8	Black
Brown	##-422BR	NA	High	7	Brown
Green	##-422G	NA	Medium	6	Green
Blue	##-422BL	NA	Moderate	4	Blue
Red	##-422R	NA	Moderate	3	Red
White	##-422W	NA	Light	1	White

NOTE: These are only approximations. The customer should always try any brush in an inconspicuous area.

SAFETY MESSAGES

YOUR SAFETY, AND THE SAFETY OF OTHERS, IS VERY IMPORTANT, AND OPERATING THIS UNIT SAFELY IS AN IMPORTANT RESPONSIBILITY.

TO HELP YOU MAKE INFORMED DECISIONS ABOUT SAFETY, WE HAVE PROVIDED OPERATING PROCEDURES AND OTHER SAFETY INFORMATION IN THE MANUAL. THIS INFORMATION INFORMS YOU OF POTENTIAL HAZARDS THAT COULD HURT YOU OR OTHERS.

IT IS NOT PRACTICAL OR POSSIBLE TO WARN YOU OF ALL THE HAZARDS ASSOCIATED WITH OPERATING THIS UNIT. YOU MUST USE YOUR OWN GOOD JUDGEMENT.

THIS IS INTENDED FOR INDUSTRIAL USE. IT IS DESIGNED TO BE USED ON HARD FLOORS IN AN INDOOR ENVIRONMENT, WITH THE RECOMMENDED PADS OR BRUSHES.

1. DO NOT OPERATE UNIT:

UNLESS TRAINED AND AUTHORIZED.
UNLESS OPERATOR MANUAL IS READ AND UNDERSTOOD.
IF UNIT IS NOT IN PROPER OPERATING CONDITION.
OUTDOORS OR EXPOSED TO RAIN.
FOR PICKING UP HAZARDOUS MATERIALS/DUST.
ON SURFACES HAVING A GRADIENT EXCEEDING 2% UNLESS THE OPTIONAL PARKING BRAKE IS FUNCTIONING ON THE MACHINE.

2. WHEN OPERATING UNIT:

REMOVE LOOSE OBJECTS FROM THE FLOOR THAT MAY BE PROJECTED FROM THE REVOLVING BRUSHES.
KEEP HANDS AND FEET AWAY FROM REVOLVING BRUSHES.
DO NOT OPERATE MACHINE WHERE FLAMMABLE LIQUIDS ARE PRESENT.
USE EXTREME CAUTION WHEN MANUEVERING.

3. BEFORE LEAVING:

MAKE SURE MACHINE IS TURNED OFF.
STOP ON LEVEL SURFACES.
DISCONNECT BATTERIES.

4. BEFORE SERVICING:

STOP ON LEVEL SURFACE, AND SECURE MACHINE.
DISCONNECT BATTERIES.

5. BEFORE DISCARDING MACHINE:

THE BATTERIES MUST BE REMOVED AND PROPERLY DISPOSED OF.

!! SAFETY PRECAUTIONS!!

WARNING: HAZARDOUS VOLTAGE. SHOCK, BURNS OR ELECTROCUTION CAN RESULT. ALWAYS DISCONNECT THE BATTERIES BEFORE SERVICING MACHINE.

WARNING: BATTERIES EMIT HYDROGEN GASES, EXPLOSION OR FIRE CAN RESULT. KEEP SPARKS AND OPEN FLAMES AWAY.

WARNING: CHARGE UNIT IN A WELL VENTILATED AREA, AND KEEP BATTERY COMPARTMENT OPEN WHEN CHARGING. EXPLOSION OR FIRE COULD RESULT.

WARNING: BATTERY ACID CAN CAUSE BURNS. WEAR PROTECTIVE EYE WEAR AND GLOVES WHEN SERVICING BATTERIES.

WARNING: DO NOT STORE OUTDOORS OR PRESSURE WASH. PREVENT FROM GETTING ELECTRONIC COMPONENTS WET.

WARNING: THE USE OF PARTS AND SOLUTIONS OTHER THAN RECOMMENDED BY THE MANUFACTURER MAY CAUSE DAMAGE OR ENDANGER PEOPLE.

WARNING: DRESS SAFELY. DO NOT WEAR RINGS OR METAL WRIST WATCHES WHILE WORKING ON THIS MACHINE. THEY CAN CAUSE AN ELECTRICAL SHORT, WHICH, CAN CAUSE SERIOUS BURNS. DO NOT WORK ON THIS MACHINE WHILE WEARING A TIE, SCARF OR OTHER LOOSE, DANGLING NECKWARE OR CLOTHING. THESE LOOSE ITEMS CAN TANGLE IN THE ROTATING PARTS AND CAUSE SERIOUS INJURY OR EVEN DEATH.

WARNING: DO NOT USE THE MACHINE AS A STEP LADDER OR CHAIR.

WARNING: ONLY OPERATE THIS MACHINE FROM THE OPERATORS SEAT. IT WAS NOT DESIGNED TO CARRY PASSENGERS.

WARNING: DO NOT OPERATE THIS MACHINE ON RAMPS OR UNEVEN SURFACES. WHEN CLIMBING A RAMP, ALWAYS DRIVE THE MACHINE IN FORWARD STRAIGHT UP OR DOWN THE RAMP. NEVER DRIVE ACROSS THE INCLINE. DO NOT BACK DOWN OR TURN ON RAMPS!

WARNING: ALWAYS USE THE CHARGER PROVIDED BY THE MANUFACTURER TO CHARGE THE MACHINE. IT IS AN AUTOMATIC CHARGER, SPECIFICALLY DESIGNED TO CHARGE AT THE APPROPRIATE RATE. IF YOU MUST USE A DIFFERENT CHARGER, DISCONNECT THE BATTERIES BEFORE CHARGING. THIS WILL PREVENT DAMAGE TO THE ELECTRONIC SPEED CONTROLLER.

WARNING: UNDERSTAND THE DYNAMIC BRAKING SYSTEM BEFORE YOU OPERATE THE MACHINE ON RAMPS. MACHINE DOES NOT COAST. RELEASING THE FOOTPEDAL WILL AUTOMATICALLY APPLY BRAKING FORCE, AND STOP THE MACHINE.

WARNING: DO NOT PARK THE MACHINE ON RAMPS OR SLOPES. THE MACHINE HAS A PARKING BRAKE, BUT IT IS RECOMMENDED THAT IT IS ALWAYS PARKED ON LEVEL GROUND.

WARNING: DO NOT OPERATE THE MACHINE IF ANY PARTS HAVE BEEN REMOVED OR DAMAGED.

WARNING: DO NOT REMOVE, PAINT OVER, OR DESTROY WARNING DECALS. IF WARNING DECALS BECOME DAMAGED, THEY MUST BE REPLACED.

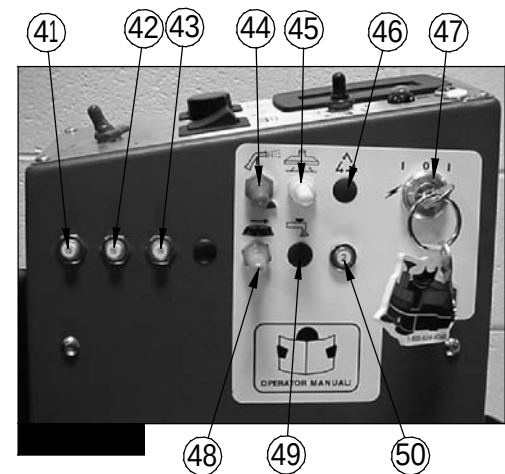
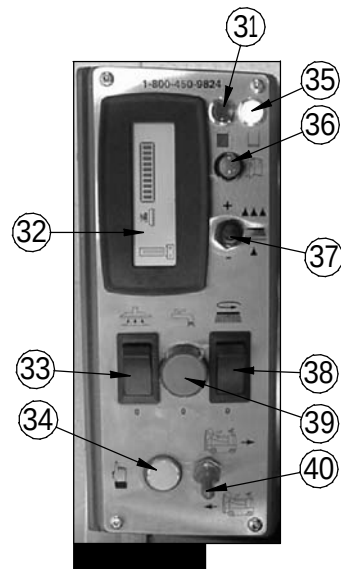
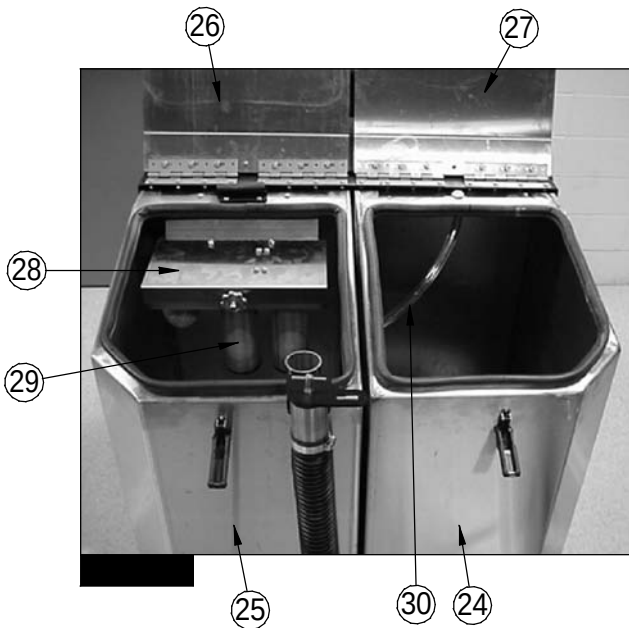
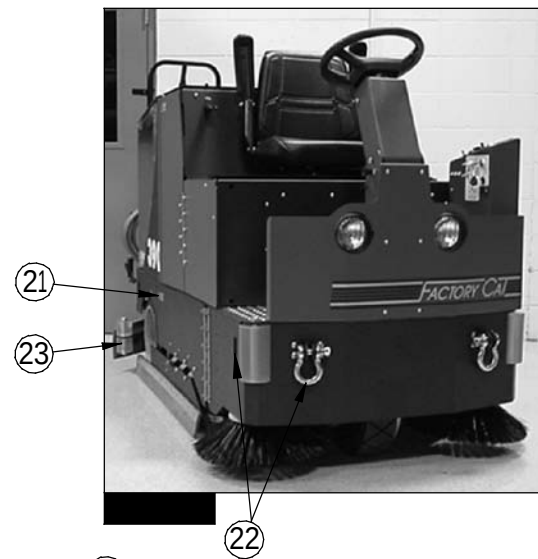
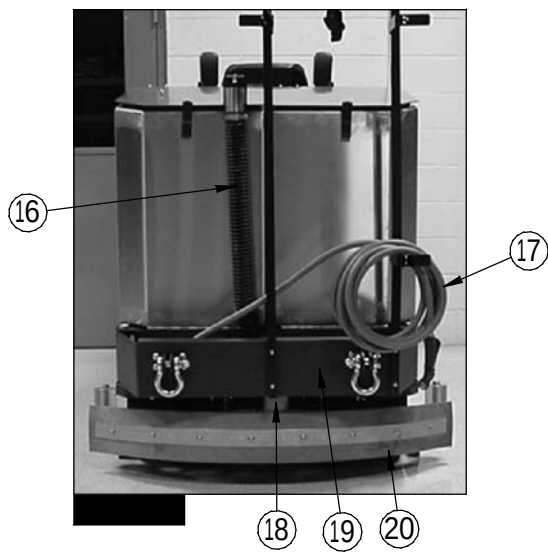
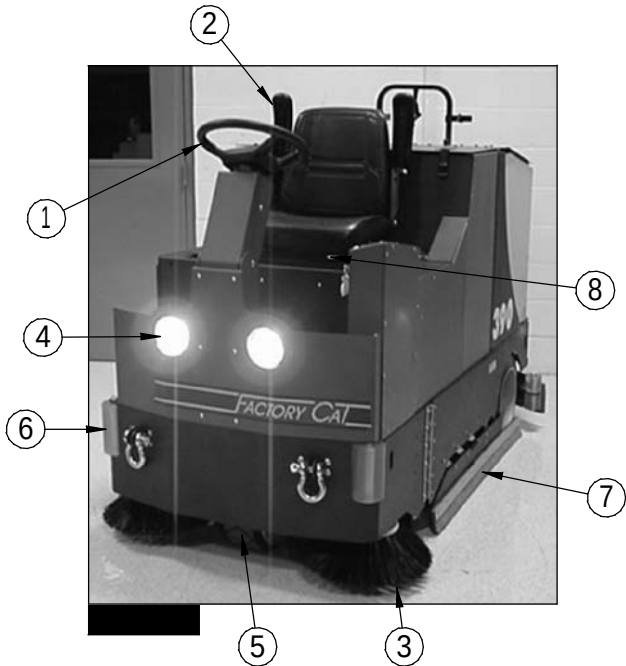
WARNING: DO NOT OPERATE MACHINE IN UNSAFE CONDITION. IF THE MACHINE IS IN NEED OF REPAIR OR IS IN ANY WAY UNSAFE TO OPERATE, THE MATTER SHOULD BE REPORTED IMMEDIATELY TO THE SHIFT SUPERVISOR. DO NOT OPERATE THE MACHINE UNTIL IT IS RETURNED TO PROPER OPERATING CONDITION.

WARNING: THIS MACHINE MUST ONLY BE OPERATED BY TRAINED OPERATOR. AS PART OF HIS OR HER TRAINING, THEY MUST READ THIS MANUAL THOROUGHLY. IF EXTRA COPIES ARE NEEDED, CONTACT YOUR LOCAL DEALER.

WARNING: ALWAYS TURN OFF THE MACHINE, BEFORE LEAVING IT UNATTENDED.

WARNING: DO NOT OPERATE OVER ELECTRICAL FLOOR OUTLETS. MAY RESULT IN SERIOUS INJURY.

MACHINE CONTROLS AND FEATURES



CONTROLS AND FUNCTIONS

SEE FIGURE 1

1. STEERING WHEEL: STEERS THE MACHINE.
2. ADJUSTABLE SEAT WITH ARM RESTS: YOUR MACHINE IS EQUIPPED WITH AN ADJUSTABLE SEAT WITH ARM RESTS.
3. SIDE BROOMS: (OPTIONAL) EXTENDS THE CLEANING PATH UP TO WALLS.
4. DUAL HEADLIGHTS: HELPS YOU SEE IN LOW LIGHT AREAS AND TO WARN ONCOMING TRAFFIC .
5. FRONT DRIVE TIRE: (BLACK STANDARD), (GREY OPTIONAL) DRIVES AND STEERS MACHINE.
6. POLYURETHANE ROLLERS: HELPS PREVENT DAMAGE TO MACHINE AND OBJECTS YOU MAY DRIVE CLOSE TO.
7. SIDE WIPERS: CONTROLS WATER ON TURNS BY DIRECTING IT TO THE SQUEEGEE.
8. SEAT ADJUSTMENT: PERMITS THE SEAT TO BE ADJUSTED FORWARD AND BACKWARD FOR OPERATOR COMFORT

SEE FIGURE 2.

9. HORN BUTTON: SOUNDS THE HORN FOR WARNING ONCOMING TRAFFIC.
10. SERIAL # PLATE: HAS MACHINES INDIVIDUAL SERIAL NUMBER STAMPED ON IT.
11. NON SLIP FLOOR PLATE: HELPS PREVENT SLIPPING WHILE GETTING ON AND OFF THE MACHINE.
12. HEADLIGHT SWITCH (BLACK): TURNS HEADLIGHTS ON AND OFF.
13. FOOT PEDAL: CONTROLS THE ACCELERATION AND DECELERATION OF THE MACHINE.
14. ADJUSTABLE STEERING: FOUR SETTINGS FOR OPERATOR COMFORT AND EASE OF ENTRY.
15. CIRCUIT BREAKER: 50 AMP MANUAL RESETABLE CIRCUIT BREAKER.

SEE FIGURE 3

16. RECOVERY DRAIN HOSE: ALLOWS FOR CONTROLLED DRAINING OF RECOVERY TANK'S DIRTY WATER.
17. SPRAY HOSE: (OPTIONAL) PERMITS CLEANING IN REMOTE AREAS.
18. SQUEEGEE/VAC HOSE: VACUUMIZES SQUEEGEE. NOTE: KEEP FREE AND CLEAR OF BLOCKAGE.
19. REAR BUMPER: OFFERS SQUEEGEE SYSTEM PROTECTION FROM DAMAGE.
20. SQUEEGEE BLADE: SQUEEGEES WATER TO BE RECOVERED BY THE VACUUM HOSE.

SEE FIGURE 4

21. SIDE DOOR LATCH: PERMITS ACCESS TO SCRUB DECK AND HOPPER.
22. TIE DOWN POINTS: LOCATION FOR TIE DOWN STRAPS DURING TRANSPORT.
23. SQUEEGEE ROLLERS: HELP PROTECT THE SQUEEGEE.

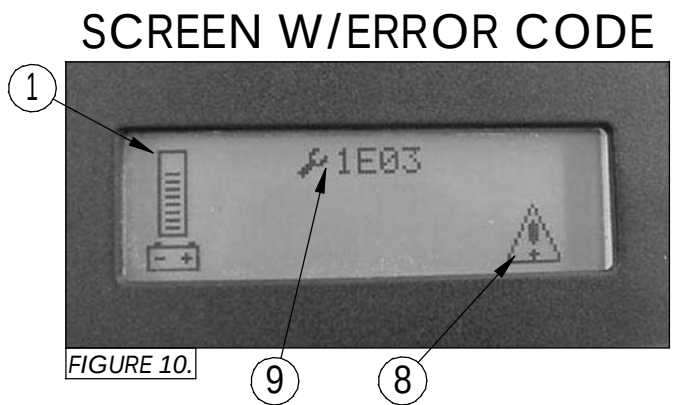
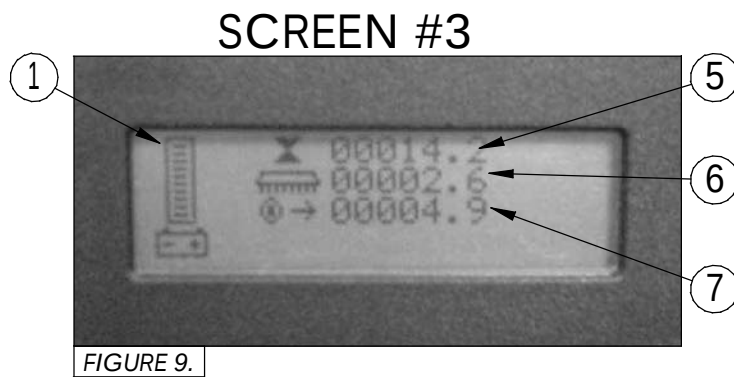
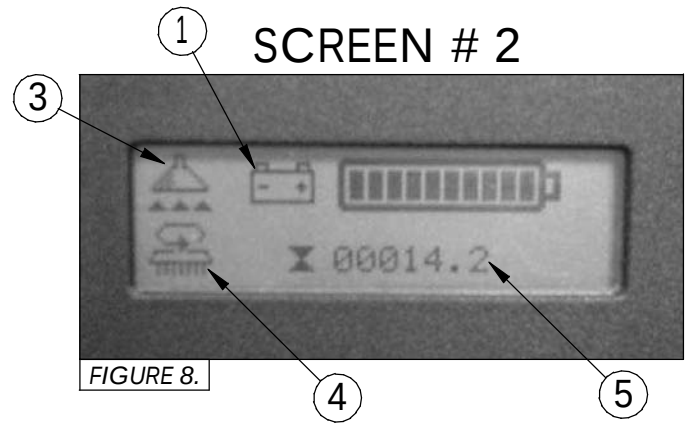
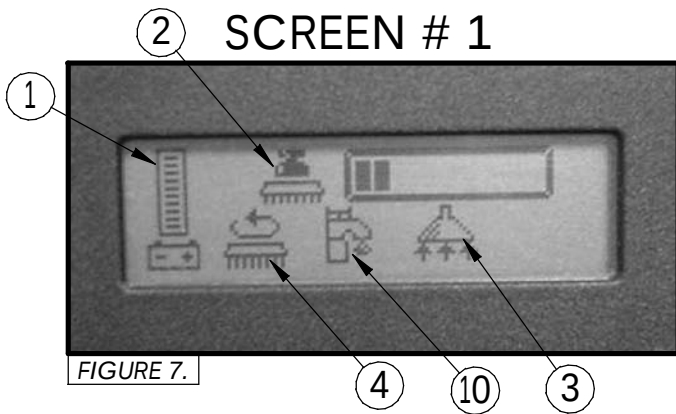
SEE FIGURE 5

24. SOLUTION TANK: HOLDS APPROXIMATELY 61-GALLONS OF CLEAN WATER.
25. RECOVERY TANK: HOLDS APPROXIMATELY 61- GALLONS OF DIRTY "RECOVERY" WATER.
26. RECOVERY ACCESS DOOR: USED FOR FLUSHING OUT RECOVERY TANK WITH FRESH WATER.
27. SOLUTION ACCESS DOOR: USED FOR FILLING SOLUTION TANK WITH WATER & APPROVED CLEANING DETERGENT.
28. VACUUM SCREEN BOX: HOUSES THE DUAL STAINLESS VAC SCREEN & SHUTOFF BALLS.
29. FOAM PROTECTION SCREEN: USED TO PROTECT VACUUM MOTOR FROM DEBRIS.
30. SOLUTION TANK VENT: PREVENTS VACUUM FROM FORMING IN THE TANK DURING OPERATION.

SEE FIGURES 6A AND 6B

31. HIGH WATER RECOVERY LIGHT (RED): INDICATES WHEN THE RECOVERY TANK IS NEARLY FULL.
32. LCD SCREEN: LISTS FUNCTIONS AND SETTING OF THE MACHINE. (SEE PAGE 9)
33. SQUEEGEE SWITCH: RAISES AND LOWERS THE SQUEEGEE.
34. "Uni-Touch" BUTTON: ACTIVATES BRUSHES, SQUEEGEE, AND SOLUTION FLOW SIMUTANEOUSLY.
35. LOW WATER SOLUTION LIGHT (YELLOW): INDICATES WHEN THE SOLUTION TANK IS DOWN TO 5 GALLONS.
36. MENU CONTROL: SCROLLS THROUGH DIFFERENT OPTIONS ON THE LCD DISPLAY.
37. SCRUB DECK DOWN PRESSURE SWITCH: CONTROLS THE PRESSURE PUT ON THE SCRUB DECK.
38. SCRUB DECK SWITCH: RAISES AND LOWERS THE SCRUB DECK.
39. SOLUTION FLOW CONTROL KNOB: TURN CLOCKWISE TO REDUCE & COUNTER-CLOCKWISE TO INCREASE FLOW.
40. FORWARD/REVERSE SWITCH (RED): CONTROLS THE DIRECTION OF THE TRACTION MOTOR.
41. CIRCUIT BREAKER: (15 AMP) POSITIVE BUS BAR.
42. CIRCUIT BREAKER: (15 AMP) NEGATIVE BUS BAR.
43. CIRCUIT BREAKER: (10 AMP) SIDE BROOM MOTORS.
44. SPRAY JET (BLUE): (OPTIONAL) ACTIVATES SPRAY PUMP FOR REMOTE SPRAY WAND.
45. VACUUM SWITCH (WHITE): FOR USE WITH REMOTE VACUUM WAND.
46. RECYCLING SWITCH (GREEN): (OPTIONAL) TURNS ON THE RECYCLING PUMP).
47. KEY SWITCH: TURNS THE MAIN POWER ON AND OFF.
48. SIDE BROOM (YELLOW): LIFTS AND LOWERS SIDE BROOMS WHICH TURN ON AUTOMATICALLY.
49. WATER TO SIDE BROOMS (GREY): PROVIDES CLEANING CHEMICAL TO EXTEND CLEANING PATH.
50. CIRCUIT BREAKER: (2 AMP) SIDE BROOM LIFT ACTUATOR.

LCD SCREEN MENU DISPLAYS



*** USE GREEN MENU SELECTION BUTTON ON CONTROL PANEL TO CHANGE SCREENS***

FIGURES 7-10.

1. BATTERY LEVEL INDICATOR - INDICATES THE ENERGY LEVEL REMAINING IN THE BATTERIES.
(SHOWN ON ALL MENU DISPLAYS)
2. SCRUBBING DECK DOWN PRESSURE GAUGE - SETS THE DOWN PRESSURE ON THE BRUSHES. (SEE FIGURE 7.)
3. VACUUM ON - INDICATES THE VACUUM IS "ON". (SEE FIGURES 7. AND 8.)
4. SCRUBBING MOTORS ON - INDICATES THE BRUSH MOTORS ARE "RUNNING". (SEE FIGURES 7. AND 8.)
5. KEY SWITCH HOUR METER - TELLS YOU THE TOTAL HOURS THE MACHINE HAS BEEN ON. (SEE FIGURES 8. AND 9.)
6. SCRUBBING BRUSH HOUR METER - TELLS YOU THE TOTAL HOURS THE BRUSH MOTORS HAVE BEEN USED. (SEE FIGURE 9.)
7. TRANSPORT HOUR METER - TELLS YOU THE TOTAL HOURS THE DRIVE SYSTEM HAS BEEN USED. (SEE FIGURE 9.)
8. ERROR WARNING SYMBOL - INDICATES WHEN THERE HAS BEEN A DIAGNOSTIC CODE ERROR. (SEE FIGURE 10.)
9. DIAGNOSTIC CODE - WHEN THE MACHINE HAS DETECTED AN ERROR IT WILL DISPLAY THE WARNING SYMBOL AND A DIAGNOSTIC CODE WHICH TELL YOU WHATS WRONG. (SEE FIGURE 10.)
10. WATER ON - INDICATES THE SOLUTION FLOW IS "ON" (SEE FIGURE 7.)

(FOR COMMAN ERROR CODES AND DESCRIPTIONS SEE PAGES 22. AND 23.)

MACHINE SETUP

UNCRATING MACHINE

CAREFULLY CHECK THE CRATE FOR ANY SIGNS OF DAMAGE. BATTERIES ARE IN THE UNIT.

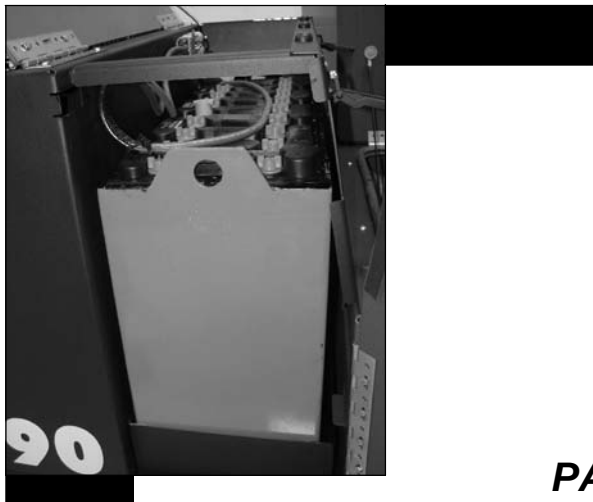
TO UNCRATE THE MACHINE, REMOVE BANDING FROM AROUND THE CRATE. TAKE OFF THE TOP AND SIDES AND DISPOSE OF PROPERLY. REMOVE BANDING FROM MACHINE. REMOVE THE CHOCKS AROUND THE DRIVE WHEELS. CONNECT BATTERY CABLES. FOLD DOWN RAMP, AND DRIVE MACHINE OFF OF THE BASE. NOTIFY THE CARRIER IMMEDIATELY IF CONCEALED DAMAGE IS DISCOVERED.



CONNECTING BATTERIES

YOUR MACHINE IS EQUIPPED WITH (SIX) 6 VOLT, DEEP CYCLE, 396 AMP HOURS BATTERIES, WHICH FORM A 36 VOLT SYSTEM. MAXIMUM BATTERY DIMENSIONS ARE 7"W X 12"L X 16"H .

1. TURN ALL SWITCHES TO THE OFF POSITION AND REMOVE KEY.
2. HINGE OPEN THE BATTERY ACCESS LID TO ACCESS THE BATTERY COMPARTMENT.
3. VERIFY THAT ALL OF THE BATTERY CABLES ARE CONNECTED TO THE BATTERIES TIGHTLY. LOCATE ANY LOOSE ONES AND CONNECT TO THE OPEN TERMINAL. TIGHTEN WITH 9/16" WRENCH. PUT COVERS IN PLACE. (SEE FIGURE 11.)
4. TURN ON MAIN POWER SWITCH AND CHECK THE BATTERY CONDITION METER TO ENSURE CORRECT INSTALLATION.

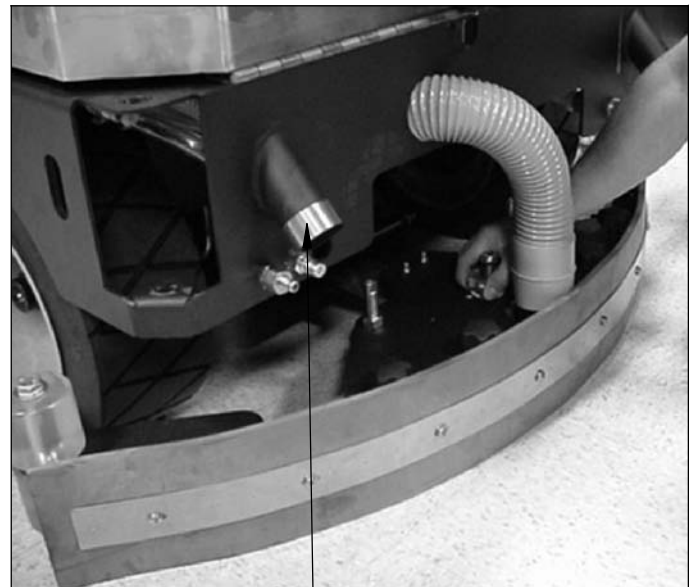


ATTACHING SQUEEGEE

1. LOWER THE SQUEEGEE MOUNTING PLATE BY DEPRESSING THE SQUEEGEE SWITCH TO THE DOWN POSITION. (SEE FIGURE 12.)



2. LOOSEN THE FOUR KNOBS ON THE SQUEEGEE AND SLIDE THEM INTO THE SLOTS IN THE SQUEEGEE MOUNTING PLATE. (SEE FIGURE 13.)
3. TIGHTEN THE KNOBS, AND CONNECT VACUUM HOSE FROM THE MACHINE TO THE SQUEEGEE. (SEE FIGURE 13.)
4. YOU MAY HAVE TO ADJUST THE SQUEEGEE PITCH, BY USING THE PITCH ADJUSTMENT KNOB. (SEE FIGURE 13 & PAGE 11.)



5. NOTE VAC EXHAUST, SINGLE VAC OUT ONE EXHAUST ONLY, DUAL VAC OUT BOTH EXHAUST.
* ASSISTS IN DRYING (SEE FIGURE 13.)

ADJUSTING SQUEEGEE

1. TURNING ADJUSTMENT KNOB CLOCK-WISE (TIGHTENING) WILL RAISE TIPS & LOWER CENTER. (SEE FIGURE 14.)

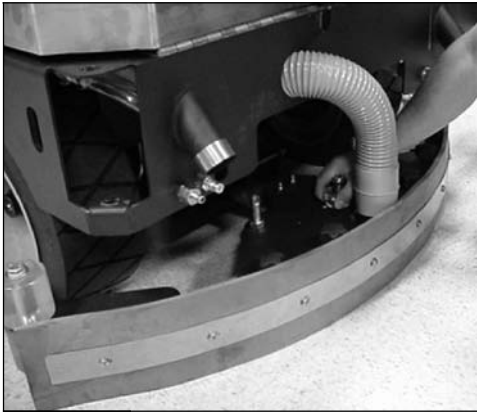


FIGURE 14.

2. THIS SQUEEGEE IS ADJUSTED TOO FAR BACK AND WILL NOT PICK UP ON THE CORNERS.
*NOTE TIPS OFF THE FLOOR. (SEE FIGURE 15.)

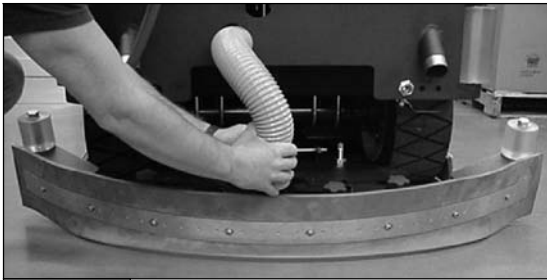


FIGURE 15.

3. THIS SQUEEGEE IS ADJUSTED TOO FAR FORWARD AND WILL NOT PICK UP IN THE CENTER.
*NOTE CENTER SPACED OFF THE FLOOR. (SEE FIGURE 16.)

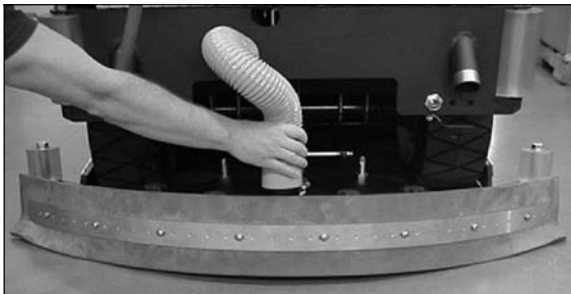


FIGURE 16.

4. THIS SQUEEGEE IS ADJUSTED JUST RIGHT WITH GOOD DEFLECTION ACROSS THE ENTIRE REAR BLADE (SEE FIGURE 17.)

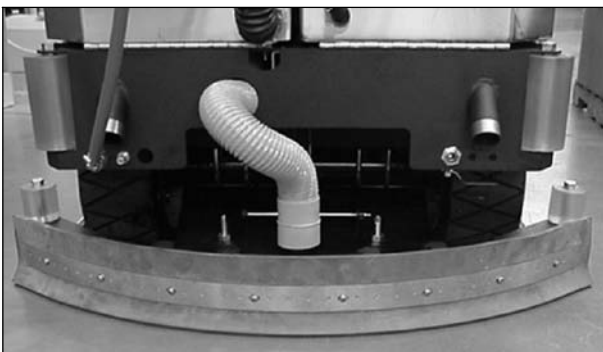


FIGURE 17.

ADJUSTING CASTERS

1. CASTERS DETERMINE THE RIDE HEIGHT & AMOUNT OF BLADE DEFLECTION. NOTE:DIFFERENT SQUEEGEE MATERIALS (GUM, LINATEX,NEOPRENE) MAY REQUIRE DIFFERENT RIDE HEIGHTS. (SEE FIGURE 18.)

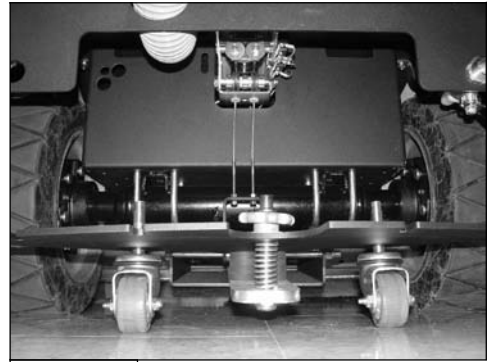


FIGURE 18.

2. TO ADJUST CASTERS LOOSEN LOCKING NUT (SEE FIGURE 19.)

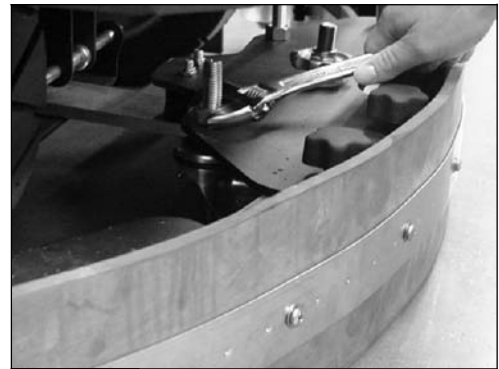


FIGURE 19.

3. ADJUSTING BOLT: LOWERING CASTER REDUCES DEFLECTION. RAISING CASTER INCREASES DEFLECTION. (SEE FIGURE 20.)



FIGURE 20.

4. SINGLE VAC SQUEEGEE BLADE (9 SLOTS)
(PART # 390-755) (SEE FIGURE 21.)



FIGURE 21.

5. DUAL VAC SQUEEGEE BLADE (15 SLOTS)
(PART #390-756) (SEE FIGURE 22.)



FIGURE 22.

VAC BOX SYSTEM

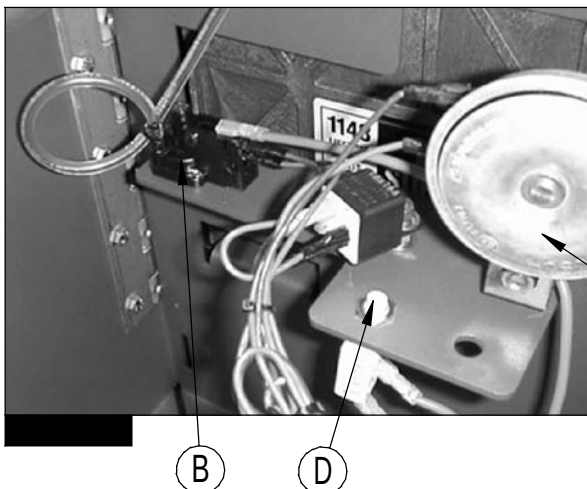
SINGLE VAC SYSTEM



1. THE "HIGH RECOVERY" LIGHT (RED) WILL ILLUMINATE (A) WHEN THE RECOVERY TANK IS FULL. STOP IMMEDIATELY AND DRAIN RECOVERY TANK. (SEE FIGURE 25.)



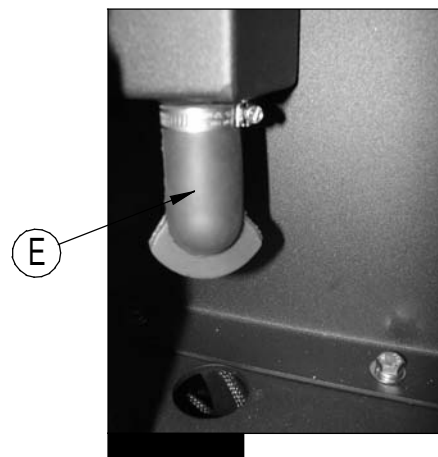
2. IF RED LIGHT IS IGNORED THE VAC SWITCH (B) WILL SHUT OFF VAC MOTORS AND SOUND HORN (C). (SEE FIGURE 26.)
3. IF VAC IS PULLING EXCESSIVE CURRENT, CIRCUIT BREAKER (30 AMP) (D) MAY BLOW TO PREVENT DAMAGE. IF THIS OCCURS CONTACT YOUR SERVICE AGENT. (SEE FIGURE 26.)
4. VAC SWITCH (A) IS SET TO ENGAGE AT 65" LIFT.



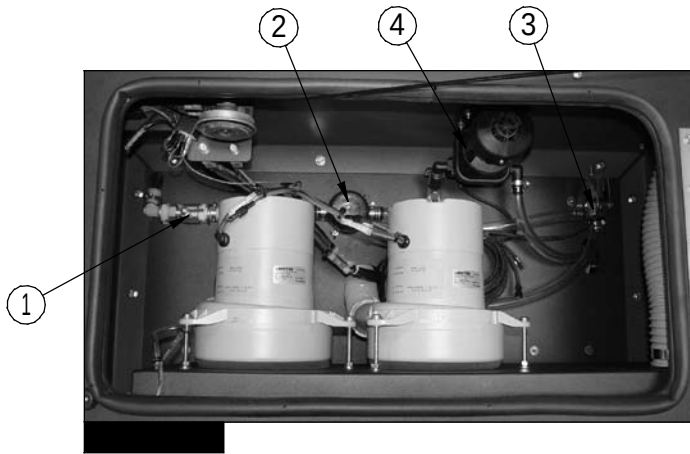
DUAL VAC SYSTEM



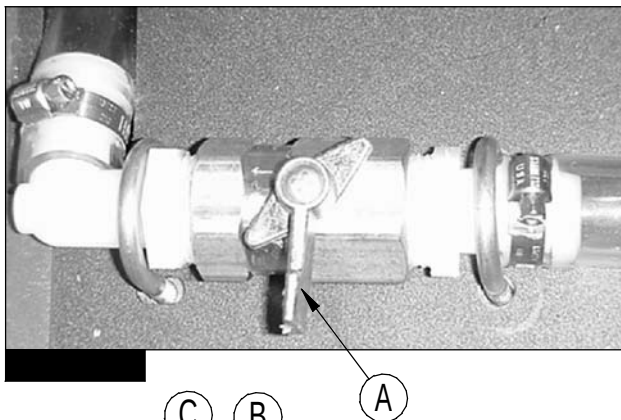
5. IF FOAM OR WATER GETS PAST THE RECOVERY TANK'S VAC SCREEN/BALL SYSTEM (FIGURE 27.) THE "UNLOADER VALVE" (E) WILL DRAIN IT FROM THE VAC BOX.
6. "UNLOADER VALVE" (E) IS LOCATED ON THE BOTTOM RIGHT SIDE OF THE VACUUM BOX. (SEE FIGURES 24 & 28.)



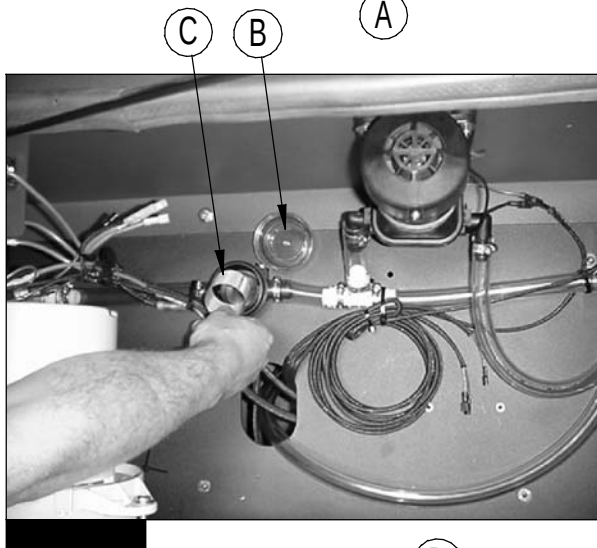
SOLUTION SYSTEM



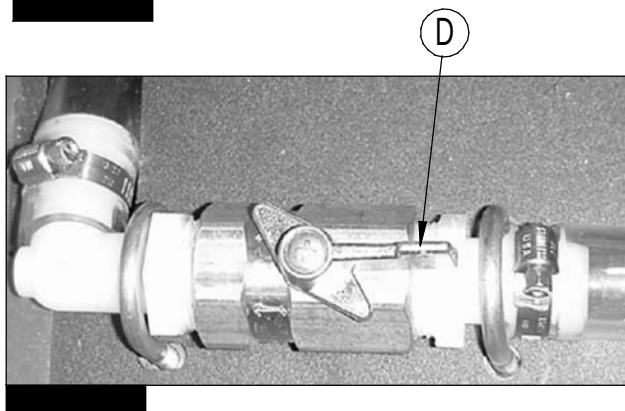
1. 3/4" GATE VALVE
2. STAINLESS STEEL INLINE FILTER
3. SOLENOID VALVE
4. SPRAY PUMP (OPTIONAL)
(SEE FIGURE 29)



1. TO CLEAN FILTER SHUTOFF 3/4" GATE VALVE (A). (SEE FIGURE 30.)



2. UNSCREW CLEAR LID (B), REMOVE STAINLESS STEEL SCREEN (C), RINSE SCREEN. (SEE FIGURE 31.)
3. INSTALL STAINLESS FILTER SCREEN, TIGHTEN CAP.



4. OPEN 3/4" VALVE (D) (SEE FIGURE 32.)

SIDE BROOM SYSTEM

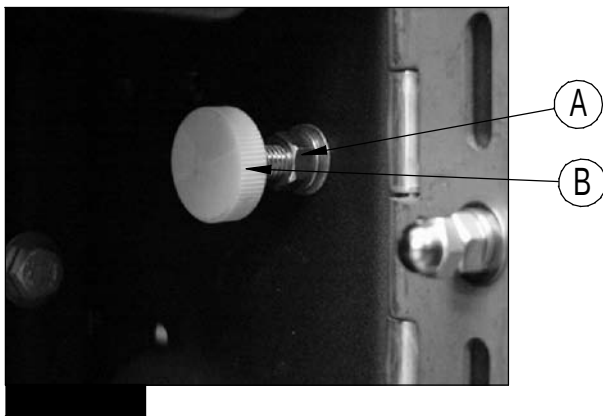
1. FLIP SIDE BROOM SWITCH (YELLOW TOGGLE) UP TO LOWER AND ENGAGE BROOM. (SEE FIGURE 33.)



5. (FIGURE 36.) SHOWS BROOMS TO HIGH.



2. TO ADJUST SIDE BROOM HEIGHT, OPEN RIGHT SIDE DOOR AND USE 1/2" WRENCH TO LOOSEN LOCKING NUT (A). (SEE FIGURE 34.)
3. ROTATE ADJUSTMENT KNOB (B) (FIGURE 34.) COUNTER-CLOCKWISE (LOOSENS) TO LOWER SIDE BROOMS. ROTATE KNOB CLOCK-WISE (TIGHTENS) TO RAISE SIDE BROOMS.



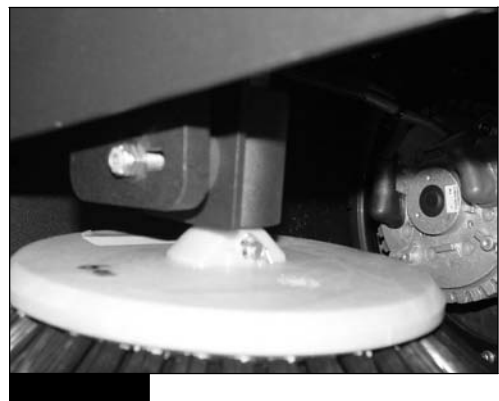
6. (FIGURE 37.) SHOWS BROOMS JUST RIGHT.



4. (FIGURE 35.) SHOWS BROOMS TO LOW.



6. (FIGURE 38.) SHOWS BROOM ADJUSTMENT SLOT.



ATTACHING DISK BRUSHES

1. TURN "ON" MACHINE POWER
2. RAISE THE SCRUB DECK BY DEPRESSING THE BRUSH SWITCH TO THE UP AND OFF POSITION AND TURN MACHINE POWER "OFF". DISCONNECT BATTERIES. (SEE FIGURE 39.)



3. OPEN SIDE DOOR TO ACCESS SCRUB DECK
4. SELECT THE CORRECT PADS OR BRUSHES THAT BEST MEET YOUR CLEANING APPLICATION. CONSULT YOUR LOCAL DEALER FOR ASSISTANCE.
5. *PAD INSTALLATION* ATTACH PADS TO PAD DRIVERS BEFORE CONNECTING PAD DRIVERS TO MOTOR HUB.
6. ATTACH BRUSHES OR PADS TO MOTOR HUBS. SQUEEZE THE SCISSOR LOCKING DEVICE AND LIFT BRUSH UP ON TO THE MOTOR DRIVE HUB. MAKE SURE THE SCISSORS CLOSE AND LOCK ONCE THE BRUSHES ARE ON. (SEE FIGURE 40.)

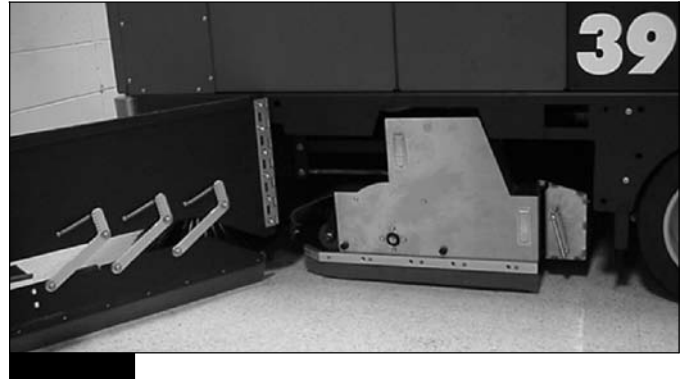


7. LIFT UP ON THE WIPERS FIRST TO CLOSE SIDE DOOR AND DEPRESS THE LATCH UNTIL THE DOOR IS SECURED. (SEE FIGURE 41.)

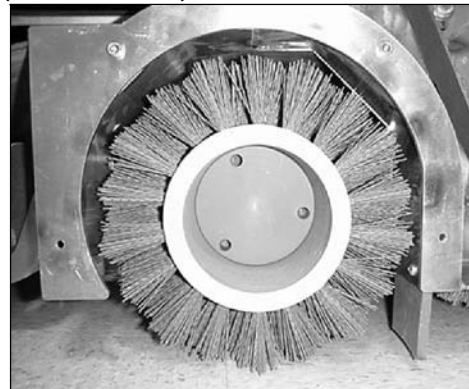


ATTACHING CYLINDRICAL BRUSHES

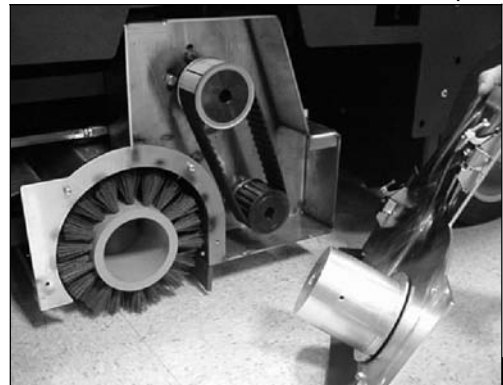
1. TURN "ON" MACHINE POWER
2. RAISE THE SCRUB DECK BY DEPRESSING THE BRUSH SWITCH TO THE UP AND OFF POSITION AND TURN MACHINE POWER "OFF". DISCONNECT BATTERIES. (SEE FIGURE 10.)
3. OPEN THE SIDE DOOR TO ACCESS CYLINDRICAL SCRUB DECK
4. UNSCREW THE TWO THUMBSCREWS AND DEPRESS LATCHES ON THE BRUSH ACCESS DOOR AND REMOVE THE DOOR. (SEE FIGURE 42.)



5. SLIDE THE BRUSHES IN ONE AT A TIME. WHEN YOU GET THE BRUSH ON THE DRIVER SPIN IT WITH YOUR HAND UNTIL YOU FEEL IT ENGAGE AND DROP IN. (SEE FIGURE 43.)



6. WHEN BOTH BRUSHES ARE ENGAGED REPLACE THE BRUSH ACCESS DOOR AND TIGHTEN IT BACK DOWN WITH THE THUMBSCREWS. (SEE FIGURE 44.)



7. LIFT UP ON THE WIPERS FIRST TO CLOSE SIDE DOOR AND DEPRESS THE LATCH UNTIL THE DOOR IS SECURED. (SEE FIGURE 41.)

FOR CORRECT PAD APPLICATION, CALL YOUR LOCAL DEALER

OPERATION

PRE-CLEANING CHECK LIST

READ AND UNDERSTAND THE SAFETY SECTION ON PAGE 5 AND 6 BEFORE OPERATING MACHINE.

1. CHECK BATTERY CONDITION GAUGE ON THE CENTRAL COMMAND II LCD SCREEN. TO CHECK GAUGE PUSH MENU CONTROL BUTTON UNTIL BATTERY GAUGE APPEARS. MAKE SURE BATTERIES ARE FULLY CHARGED BEFORE USING.
2. CHECK THE CONDITION OF PADS OR BRUSHES.
3. CHECK THE CONDITION OF THE SQUEEGEE BLADES.
4. TRANSPORT THE MACHINE TO THE FILLING STATION. RAISE THE SCRUBHEAD AND SQUEEGEE WHEN TRANSPORTING.
5. TURN MACHINE OFF.
6. OPEN SOLUTION FILL DOOR AT THE BACK OF THE MACHINE AND FILL THE TANK UP WITH CLEAN WATER. FOAM IN THE RECOVERY TANK IS USUALLY AN INDICATION OF EXCESSIVE SOAP. (SEE FIGURE 45.)
7. ADD CLEANING CHEMICAL. USE THE PROPER DILUTION RATIO INDICATED ON THE BOTTLE.

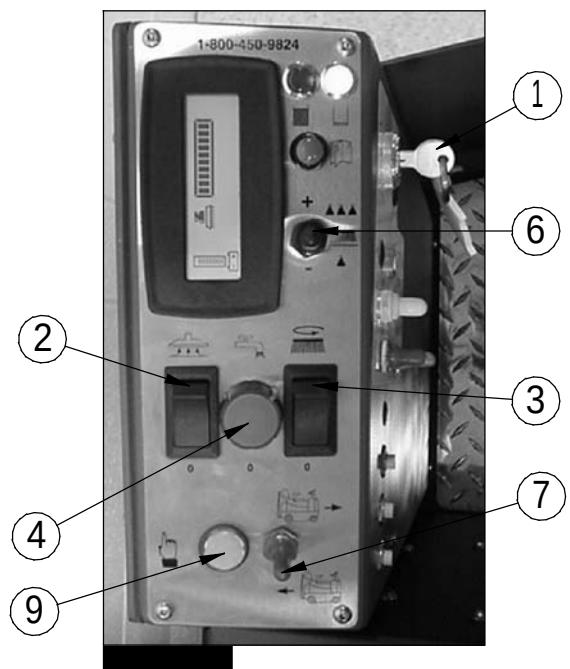
NOTE: USE ONLY NONFLAMMABLE COMMERCIAL CLEANING CHEMICALS. YOUR AUTHORIZED DISTRIBUTOR CAN ASSIST YOU IN SELECTING A PROPER CHEMICAL.



ONE PASS SCRUBBING

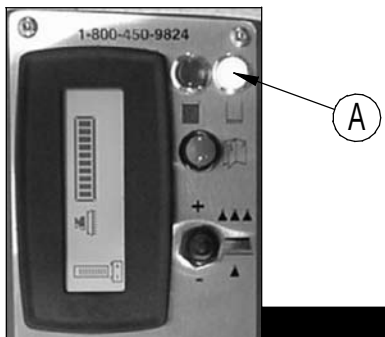
STEPS: (SEE FIGURE 46.)

1. TURN MACHINE ON WITH THE KEY SWITCH.
2. LOWER SQUEEGEE BY PRESSING THE SWITCH.
3. LOWER SCRUB HEAD TO THE FLOOR, USE THE TOP HALF OF THE BRUSH SWITCH.
4. ADJUST THE SOLUTION LEVER TO THE DESIRED SETTING. (SET HALF WAY), TURN CLOCKWISE FOR LESS, COUNTER-CLOCKWISE FOR MORE.
5. BEGIN SCRUBBING BY DEPRESSING THE FOOT PEDAL SLOWLY AND THEN TO THE SPEED REQUIRED. (NOT SHOWN)
6. START SCRUBBING AT THE #1 OR # 2 MARKS, DO NOT USE THE #4 OR #5 MARKS WITHOUT MANAGER'S APPROVAL.
7. TO OPERATE MACHINE IN REVERSE, SIMPLY SWITCH THE REVERSE SWITCH TO THE REVERSE POSITION, BACK UP ALARM MAY SOUND AND YOUR REVERSE SPEED IS SET TO ROUGHLY 70% OF FORWARD.
8. TO STOP THE MACHINE, LET OFF OF THE FOOT PEDAL, AND THE MACHINE WILL STOP AUTOMATICALLY. (NOT SHOWN)
9. DEPRESSING THE "Uni-Touch" BUTTON ACTIVATES THE SQUEEGEE, VACUUM, AND BRUSHES SIMULTANEOUSLY. (GREEN LIGHT WILL ILLUMINATE)



OPERATING HINTS

1. OBSERVE THE AMOUNT OF SOLUTION THE MACHINE IS DISPENSING ON THE FLOOR AND ADJUST TO THE DESIRED FLOW. TO INCREASE THE SOLUTION FLOW RATE, ROTATE BLUE KNOB COUNTER-CLOCKWISE.
2. KEEP AN EYE ON THE "RED" RECOVERY FULL LIGHT TO MAKE SURE THERE IS NOT FOAMY BUILDUP IN THE RECOVERY TANK. IF EXCESS FOAM BEGINS TO DEVELOP, POUR A RECOMMENDED FOAM CONTROL SOLUTION INTO THE RECOVERY TANK.
3. ALWAYS OPERATE AT LOWER SPEEDS WHEN SCRUBBING AROUND WALLS AND OBJECTS. YOU SHOULD REDUCE THE SPEED, TO MAINTAIN CONTROL WHEN TURNING.
4. IF SQUEEGEE STARTS TO STREAK, RAISE AND WIPE THE BLADES WITH A CLEAN CLOTH. IF THE PROBLEM CONTINUES, CHECK THE BLADES FOR WEAR OR DAMAGE, AND ROTATE IF NEEDED.
5. CHANGE OR TURN OVER PADS WHEN DIRTY. ROTATE THE SCRUB BRUSHES EVERY WEEK.
6. STAY CLEAR OF OBJECTS PROTRUDING FROM THE FLOOR, SUCH AS SOCKETS, GRATES, FOR THEY WILL DAMAGE THE PADS AND SQUEEGEE BLADES.
7. DURING BRIEF STOPS YOU SHOULD TURN EVERYTHING OFF, THE BRUSHES AND SOLUTION WILL AUTOMATICALLY STOP WHEN THE FOOT PEDAL IS RELEASED.
8. ALWAYS KEEP AN EYE ON YOUR GAUGES. THEY LET YOU KNOW THE STATUS OF A PARTICULAR SYSTEM AT A GLANCE. IF YOUR BATTERY GAUGE IS READING LOW, YOU MUST STOP IMMEDIATELY, AND RECHARGE. RUNNING THE BATTERIES DEAD, WILL RESULT IN DAMAGE TO THE BATTERIES.
9. WHEN YOU RUN OUT OF SOLUTION, RAISE THE BRUSHES, AND CONTINUE TO VACUUM THE REMAINING WATER UNTIL IT IS CONSUMED. THE YELLOW "LOW" SOLUTION LIGHT (A) ACTIVATES WHEN YOU HAVE (5) GALLONS REMAINING. (SEE FIGURE 47.)



10. WHEN YOU ARE READY TO STOP, PICK UP THE BRUSHES, TURN OFF THE SOLUTION SWITCH, PICK UP THE SQUEEGEE, AND DRIVE THE MACHINE BACK TO THE CHARGING AREA.

DRAINING RECOVERY TANK

ALWAYS EMPTY RECOVERY TANK WHEN REFILLING THE SOLUTION TANK. TO DRAIN THE RECOVERY TANK, PERFORM THE FOLLOWING STEPS.

1. REMOVE DRAIN HOSE FROM THE EXPANSION PLUG HOLDER BY TUNING THE T-HANDLE COUNTER-CLOCKWISE. OPEN THE TOP "RECOVERY ACCESS LID" AND FLUSH OUT WITH FRESH WATER TO KEEP TANK CLEAN. (SEE FIGURE 48.)



2. RINSE THE RECOVERY TANK AFTER EVERY USE. THIS WILL PREVENT HEAVY BUILDUP ON THE BOTTOM OF THE TANK, FOUL ORDERS, AND CLOGGING OF THE DRAIN HOSE.
3. ONCE TANK IS EMPTY, PUT DRAIN HOSE BACK ON THE PLUG AND TIGHTEN BY TURNING THE T-HANDLE CLOCK WISE.

DRAINING SOLUTION TANK

TO DRAIN LEFT OVER CLEANING SOLUTION FROM THE SOLUTION TANK, PERFORM THE FOLLOWING STEPS. (SEE FIGURE 49.)

1. ROTATE THE (BLUE) SOLUTION TANK DRAIN VALVE (B).



RECOVERY TANK FLOAT SHUT-OFF

When water is no longer being vacuumed from the floor and the vacuum fan is operating, the ball float has engaged. The vacuum motor will not vacuum water with recovery tank full. The recovery tank must be drained.

1. The float shut-off screen can be cleaned in or out of the machine.
2. To clean the float shut-off while it is inside the machine wipe material off screen then rinse. Check that the ball is also clean and moves freely.
3. To remove the float shut-off, grasp the screen with one hand and Remove.
4. Both screens, gaskets, & shutoff balls must be in place.



BATTERY CHARGING

CAUTION: THE FOLLOWING INSTRUCTIONS ARE INTENDED FOR THE 36V CHARGER SUPPLIED WITH THE MACHINE. DO NOT USE ANY OTHER CHARGER WITH THIS MACHINE.

CHARGER SPECIFICATIONS

OUTPUT VOLTAGE OF 36 VOLTS. (STANDARD)

OUTPUT CURRENT OF 36 AMPS MAX. (STANDARD)

INPUT VOLTAGE OF 110 VOLTS/60 HZ. (STANDARD)

AUTOMATIC SHUT OFF CIRCUIT.

MADE FOR DEEP CYCLE BATTERIES.

DANGER: ALWAYS CHARGE BATTERIES IN A WELL VENTILATED AREA. BATTERIES EMIT HYDROGEN GAS. EXPLOSION OR FIRE CAN RESULT. KEEP SPARKS AND FLAME AWAY. SHIELD EYES WHEN SERVICING BATTERIES AND AVOID CONTACT WITH BATTERY ACID. LEAVE ACCESS PANEL OPEN WHEN CHARGING!

1. TRANSPORT MACHINE TO A WELL VENTILATED AREA FOR CHARGING.
2. TURN THE MACHINE OFF.
3. HINGE OPEN THE BATTERY ACCESS PANEL TO EXPOSE THE BATTERIES. (SEE FIGURE 50.)
CAUTION: (ALWAYS WEAR EYE PROTECTION WHEN BATTERIES ARE EXPOSED)
4. CHECK THE WATER LEVEL IN EACH BATTERY. DO NOT CHARGE THE MACHINE UNLESS THE WATER IS SLIGHTLY HIGHER THAN THE PLATES. IF NEEDED, ADD ENOUGH *DISTILLED* WATER TO 1/2" ABOVE THE PLATES. DO NOT OVER FILL. BATTERIES CAN OVERFLOW DURING CHARGING. REPLACE CAPS BEFORE CHARGING.
5. WITH THE GREY CHARGER PLUG DISCONNECTED FROM THE MACHINE, PLUG THE CHARGER POWER CORD INTO A GROUNDED 110 VOLT STANDARD WALL OUTLET. (SEE FIGURE 51.)



6. CONNECT THE GREY CHARGER PLUG INTO THE BATTERY CHARGING PORT LOCATED ON THE REAR UPRIGHT. (SEE FIGURE 50)
7. THE CHARGER WILL AUTOMATICALLY BEGIN CHARGING, AND AUTOMATICALLY SHUT OFF WHEN FULLY CHARGED (CHECK GAUGE)
8. AFTER THE CHARGER HAS TURNED OFF, UNPLUG THE GREY CHARGER PLUG FROM THE MACHINE AND DISCONNECT THE CHARGER FROM THE WALL OUTLET. (SEE FIGURE 50)
9. RECHECK THE CELL LEVEL AFTER CHARGING. IF NEEDED, ADD DISTILLED WATER UP TO THE CORRECT LEVEL. BE CERTAIN TO REPLACE THE CAPS SECURELY AND TO WIPE OFF THE TOP OF THE BATTERIES WITH A CLEAN CLOTH.

CHANGING BATTERIES

STOP MACHINE IN A CLEAN AREA NEXT TO THE CHARGER. TURN OFF MACHINE.

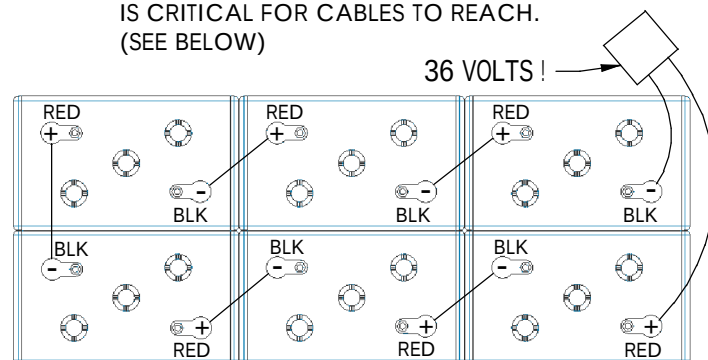
FOR SAFETY: BEFORE LEAVING OR SERVICING THE MACHINE; STOP ON LEVEL SURFACE, TURN OFF MACHINE AND REMOVE KEY.

1. Raise the battery cover.
2. Disconnect battery pack from machine. (FIG. 50)
3. Use the proper size wrench to disconnect main ground wire first and secure cable terminal away from batteries.
4. Disconnect main positive lead and secure cable and remove one at a time.
5. Loosen both terminals on each jumper cable and remove one at a time.
6. Prepare a suitable site to place the batteries.
7. Attach suitable battery lifting device and lift batteries from the machine.

WARNING!

Batteries are a possible environmental hazard. Consult your battery supplier for safe disposal methods.

NOTE: ORIENTATION OF POSITIVE AND NEGATIVE POSTS IS CRITICAL FOR CABLES TO REACH. (SEE BELOW)



MAINTENANCE

DAILY MAINTENANCE

1. REMOVE AND CLEAN PADS OR BRUSHES. NEVER USE SOILED PADS WHEN CLEANING. REPLACE PADS WHEN THEY BECOME PACKED WITH RESIDUE.
2. REMOVE AND CLEAN DEBRIS FROM THE FLOAT SHUT-OFF SCREEN LOCATED INSIDE THE RECOVERY TANK.
3. DRAIN AND RINSE TANKS THOROUGHLY INSPECT VACUUM HOSE FOR ANY OBJECTS OBSTRUCTING THE AIR FLOW.
4. RAISE SQUEEGEE AND WIPE BLADES WITH A CLEAN CLOTH. STORE SQUEEGEE IN THE RAISED POSITION TO PREVENT DAMAGE OR SETTING OF THE BLADES.
5. WIPE DOWN MACHINE IF NEEDED. USE A NONABRASIVE, NON SOLVENT CLEANER, OR A CLEAN DAMP CLOTH.
6. RECHARGE THE BATTERIES IF NEEDED.

WEEKLY MAINTENANCE

1. CHECK BATTERY WATER LEVEL IN EACH CELL OF THE BATTERIES, AND FILL AS NEEDED. ALWAYS USE DISTILLED WATER TO REFILL BATTERIES. BATTERIES SHOULD BE FILLED APPROXIMATELY 3/4" TO 1" ABOVE THE PLATES. OVERFILLING WILL CAUSE THE BATTERIES TO LEAK DURING CHARGING. THE CHARGING PROCESS CREATES GAS BUBBLES INSIDE THE BATTERY, WHICH EFFECTIVELY INCREASES THE VOLUME OF THE ELECTROLITE.
2. CLEAN BATTERY TOPS TO PREVENT CORROSION.
3. ROTATE BRUSHES. ROTATE THE LEFT TO THE RIGHT AND RIGHT TO LEFT. ON CYLINDRICAL MODELS FROM FRONT TO BACK, OR END TO END IF USING DIFFERENT MATERIALS.

MONTHLY MAINTENANCE

1. CHECK SCRUB HEAD AND SQUEEGEE LIFTING CABLES FOR WEAR AND SPRING TENSION.
2. CHECK MACHINE FOR WATER LEAKS AND LOOSE NUTS AND BOLTS.
3. CHECK TO SEE IF BATTERY CABLES ARE TIGHTENED (TIGHTEN IF NEEDED)
4. CHECK PARKING BRAKE

YEARLY MAINTENANCE

1. CALL YOUR LOCAL DEALER FOR YEARLY MAINTENANCE

STORING MACHINE

1. BE SURE TO FLUSH THE TANKS OUT COMPLETELY, AND TO DRAIN ALL WATER FROM THE MACHINE.
2. OPEN THE RECOVERY TANK LID TO PROMOTE AIR CIRCULATION.
3. RAISE BRUSHES AND SQUEEGEE.

CHECKING BATTERY SPECIFIC GRAVITY

USE A HYDROMETER TO CHECK THE BATTERY SPECIFIC GRAVITY.

CHECKING GRAVITY

A. HYDROMETER

B. BATTERY

NOTE: DO NOT TAKE READINGS IMMEDIATELY AFTER ADDING DISTILLED WATER, IF WATER AND ACID ARE NOT THOROUGHLY MIXED, THE READING MAY NOT BE ACCURATE.

CHECK THE HYDROMETER AGAINST THIS CHART.

SPECIFIC GRAVITY @ 80° F (27°C)	BATTERY CONDITION
1.265	100% CHARGED
1.225	75% CHARGED
1.190	50% CHARGED
1.155	25% CHARGED
1.120	DISCHARGED

NOTE: IF THE READINGS ARE TAKEN WHEN THE BATTERY ELECTROLYTE IS ANY TEMPERATURE OTHER THAN 80° F (27°C), THE READING MUST BE TEMPERATURE CORRECTED.

TO FIND THE CORRECTED SPECIFIC GRAVITY READING WHEN THE TEMPERATURE OF THE BATTERY ELECTROLYTE IS OTHER THAN 80°F (27°C): ADD (+) TO THE SPECIFIC GRAVITY READING 0.004 (4 POINTS), FOR EACH 10°F (6°C) ABOVE 80°F (27°C).
SUBTRACT (-) FROM THE SPECIFIC READING 0.004 (4 POINTS), FOR EACH 10°F (6°C) BELOW 80°F (27°C).

MAINTENANCE SERVICE SCHEDULE

MAINTENANCE	BEFORE EACH WORK PERIOD	AFTER EACH WORK PERIOD	50 HRS	100 HRS	200 HRS
Check water level of batteries after charging; add distilled water if necessary	*				
Check that recovery tank cover seals tightly	*				
Visually check for damaged or worn tires	*				
Check brushes or pads for proper installation	*				
Check vacuum hose connections	*				
Check that squeegee is securely attached and properly adjusted	*				
Check that side squeegees are properly adjusted	*				
Check for securely attached drain hose, plug and caps	*				
Check parking brake and steering for proper operation	*				
Inspect vacuum filter for debris		*			
Clean out solution tank and filter, check flow		*			
Run vacuum motors to dry		*			
Clean brushes or pads and check wear		*			
Clean main and side squeegee blades and check wear		*			
Clean out recovery tank and vacuum filter		*			
Clean and inspect float shutoff		*			
Clean outside of tanks, check for damage		*			
Store with tank covers open		*			
Charge batteries		*			
Check side squeegee for wear			*		
Clean off top of batteries			*		
Check battery cells with hydrometer			*		
Inspect scrub deck skirts			*		
Clean solution strainers			*		
Check battery connections are tight			*		
Clean battery cases and battery compartment				*	
Check parking brake adjustment					*
Check brake for damage or wear					*
Clean pivot points on squeegee and scrub deck					*
Check all motors for carbon brush wear					*
Check motor commutators					*
Check steering chain tensioner					*

NOTE: Traction drive, wheels and batteries should be serviced based on traction drive hourmeter. The scrub brush hour meter should be used for all other service schedule items.

TO CHARGE THE BATTERIES

When servicing machine, avoid contact with battery acid.

Batteries emit hydrogen gas. Explosion or fire can result. Keep sparks and open flame away. Keep covers open when charging.

Wear eye protection and protective clothing when working with batteries.

Charge batteries in a well ventilated area. Leave the battery cover open.

Use a 36 volt, 36 amp maximum output (depending on the size of the batteries), DC charger which will automatically shut off when the batteries are fully charged.

1. Stop the machine in a clean, well ventilated area next to the charger.
2. Turn "OFF" machine. *FOR SAFETY:* Before leaving or servicing machine stop on level surface, turn off machine and remove key.
3. Raise the battery cover. Batteries emit hydrogen gas. Explosion or fire can result. Keep sparks and open flame away. Keep covers open when charging.
4. Check the electrolyte level in each battery cell. Before charging, add just enough distilled water to cover the plates. After charging is complete, add just enough distilled water to bring up the level to the indicator ring. If the water level is too high before charging, normal expansion rate of the electrolyte may cause an overflow. Resulting in a loss of battery acid balance and damage the machine.

Do not push the machine with the key on. You can damage the machine's electronics. If machine is disabled and must be pushed:

1. Disconnect the parking brake by pulling the lever forward (illustration)
2. Leave key off.

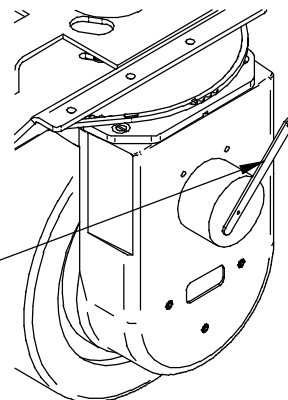
TO REMOVE SQUEEGEE ASSEMBLY

1. With the squeegee in the up position, turn key switch "OFF".
2. Disconnect vacuum hose from squeegee and loosen knobs.
3. Pull squeegee assembly rearward from the lifting carrier.
4. Inspect or repair as necessary and reinstall.

TO REPLACE OR ROTATE SQUEEGEE BLADES

FOR SAFETY: Before leaving or servicing machine, stop on level surface, turn off machine and remove key.

1. Remove the squeegee assembly from the machine. Remove blade retainer strap and remove squeegee blade.
2. Rotate the squeegee to new edge position or replace as required.
3. Install blade on locating pins of squeegee assembly.
4. Install squeegee retainer strap.
5. Fasten and lock knobs.



PREVENTATIVE MAINTENANCE RECORDS

USE THIS FORM TO MAKE COPIES FOR YOUR INTERNAL RECORDS

<u>PREVENTATIVE MAINTENANCE</u>	<u>CHECKED</u>	<u>NOTE</u>
ROTATE BRUSHES	_____	_____
ROTATE SIDE BROOMS	_____	_____
DRAIN SOLUTION TANK	_____	_____
FLUSH SOLUTION SYSTEM	_____	_____
CLEAN SOLUTION SCREEN	_____	_____
DRAIN RECOVERY TANK	_____	_____
FLUSH RECOVERY TANK	_____	_____
CLEAN VACUUM SCREEN	_____	_____
ROTATE REAR SQUEEGEE BLADE	_____	_____
CHECK BATTERY WATER LEVEL	_____	_____
CHECK BATTERY VOLTAGE	_____	_____
CHECK CHARGER CONDITION	_____	_____
CHECK BATTERY CONNECTIONS	_____	_____
CHECK CHEMICAL LEVEL	_____	_____
CHECK MACHINE PERFORMANCE	_____	_____
SCRUBBING POWER	_____	_____
VACUUM POWER	_____	_____
CONTROLS WATER ON TURNS	_____	_____
GAUGES AND CONTROLS	_____	_____
CHECK WHEEL TRACTION	_____	_____
OTHER: _____	_____	_____
OTHER: _____	_____	_____
PAST HOUR METER READING:		_____
CURRENT HOUR METER READING:		_____
AVERAGE WEEKLY USAGE:		_____
TECHNICIAN PRINT: _____		
TECHNICIAN SIGNATURE: _____		DATE: _____
MANAGER SIGNATURE: _____		DATE: _____

PREVENTATIVE MAINTENANCE RECORDS

USE THIS FORM TO MAKE COPIES FOR YOUR INTERNAL RECORDS

PREVENTATIVE MAINTENANCE

CHECKED

NOTE

ROTATE BRUSHES
 ROTATE SIDE BROOMS
 DRAIN SOLUTION TANK
 FLUSH SOLUTION SYSTEM
 CLEAN SOLUTION SCREEN
 DRAIN RECOVERY TANK
 FLUSH RECOVERY TANK
 CLEAN VACUUM SCREEN
 ROTATE REAR SQUEEGEE BLADE
 CHECK BATTERY WATER LEVEL
 CHECK BATTERY VOLTAGE
 CHECK CHARGER CONDITION
 CHECK BATTERY CONNECTIONS
 CHECK CHEMICAL LEVEL
 CHECK MACHINE PERFORMANCE
 SCRUBBING POWER
 VACUUM POWER
 CONTROLS WATER ON TURNS
 GAUGES AND CONTROLS
 CHECK WHEEL TRACTION

OTHER: _____

OTHER: _____

PAST HOUR METER READING:

CURRENT HOUR METER READING:

AVERAGE WEEKLY USAGE:

TECHNICIAN PRINT: _____

TECHNICIAN SIGNATURE: _____

MANAGER SIGNATURE: _____

DATE: _____

DATE: _____

TROUBLESHOOTING CENTRAL COMMAND II

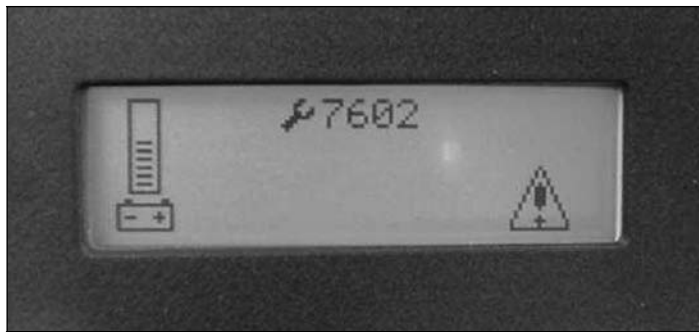
NOTE: THIS MACHINE IS OPERATED BY A SOPHISTICATED ELECTRONIC "BRAIN" THAT HAS MANY FAIL-SAFES WITHIN IT. THE BRAIN SELF-ANALYZES PROBLEMS AND FLASHES A FOUR-DIGIT NUMERIC CODE OF WHAT IS WRONG IN THE LCD WINDOW.

MOST OF THESE CODES REQUIRE A TECHNICIAN'S ATTENTION. YOU SHOULD NOT ATTEMPT REPAIRS YOU ARE UNFAMILIAR WITH, ESPECIALLY IF YOU ARE NOT AUTHORIZED TO WORK ON THIS EQUIPMENT.

THE COMPLETE LIST OF CODES IS PUBLISHED IN THE *SIMPLIFIED ELECTRONIC TROUBLESHOOTING MANUAL*, WHICH IS AVAILABLE TO TECHNICAL PEOPLE. HOWEVER, WE HAVE INCLUDED THE BASIC CODES THAT YOU CAN USUALLY RESOLVE YOURSELF.



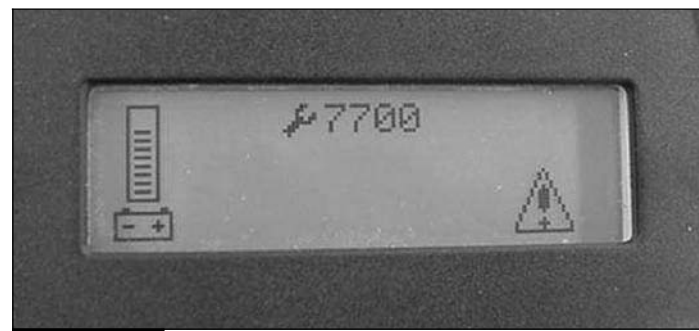
1. 1E03 AND 1E04 ERROR. CHECK THE SMALL SAFETY SWITCH NEXT TO THE RED PLUG BELOW THE DASHBOARD. THIS SWITCH WILL TURN OFF THE TRACTION DRIVE AND BRUSHES AS A SAFETY FEATURE WHILE THE CHARGER IS PLUGGED IN. THE SWITCH MAY BE STUCK, OR THE PLUG TWISTED AT AN ANGLE, ENGAGING THE SWITCH. THIS CODE WILL ALSO FLASH IF THE WIRING BECOMES VERY WET. IN THIS CASE, EITHER WAIT UNTIL THE WIRING DRIES OUT, OR CALL A TECHNICIAN.



2. 7601 AND 7602 ERROR. SCRUBDECK CURRENT OVER LOAD. THIS CAN OCCUR WHEN DRIVING OVER A BUMP IN THE FLOOR. TO RESTART, TURN OFF THE KEY AND TURN IT ON AGAIN. TO AVOID THIS ERROR, EITHER SLOW DOWN ON BUMPY PARTS OF THE FLOOR, OR REDUCE DOWNPRESSURE ON THE PADS.



3. 1600 ERROR. VOLTAGE EXCEEDS THE MAXIMUM. EITHER THE BATTERIES ARE MIS-WIRED, OR THE CHARGER IS STILL PLUGGED INTO THE MACHINE.

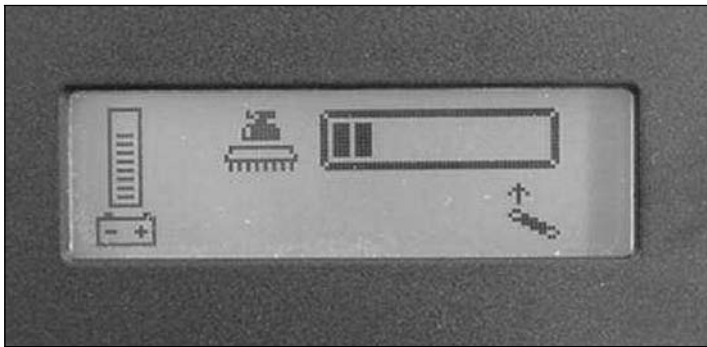


4. 7700, 7701, 7702, AND 7703 ERROR. THE VACUUM MOTOR HAS EXCEEDED THEIR AUTHORIZED POWER LIMITS. TURN OFF KEY AND TURN ON AGAIN TO CLEAR.

TROUBLESHOOTING CENTRAL COMMAND



5. 7900 AND 7901 ERROR. THE EMERGENCY STOP BUTTON IS OUT



6. THROTTLE ERROR. YOU PRESSED THE FOOT PEDAL BEFORE TURNING ON THE KEY. TURN OFF THE KEY AND TRY AGAIN, LEAVING FOOT OFF OF THE PEDAL.



7. 2C00 AND 2C01 ERROR. LOW VOLTAGE WARNING. VOLTAGE HAS DROPPED DOWN BELOW THE MINIMUM REQUIRED TO OPERATE THE MACHINE. IF YOU WAIT A FEW MINUTES, THE BATTERIES MAY COME UP IN VOLTAGE, ALLOWING YOU TO DRIVE VERY SLOWLY TO THE RECHARGE STATION. IF NOT, YOU WILL HAVE TO RELEASE THE PARKING BRAKE (ON THE FRONT WHEEL, PULL LEVER TOWARD THE FRONT OF THE MACHINE TO RELEASE) AND PUSH THE MACHINE TO RECHARGING STATION. MUST DISCONNECT THE TRACTION MOTOR!



8. 7802 ERROR. THE TRACTION MOTOR WAS USED TO CLIMB A RAMP, AND WAS RUNNING UP THE RAMP FOR MORE THAN THE 60 SECONDS ALLOWED FOR THIS. TURN OFF THE KEY, TURN ON AGAIN, AND CONTINUE. YOU SHOULD NOT USE THIS MACHINE TO CLIMB RAMPS SO STEEP AND SO LONG THAT THIS CODE COMES UP REPEATEDLY, OR YOU COULD OVERHEAT THE TRACTION MOTOR.

9. ALL OTHER ERROR CODES. TURN OFF THE KEY, AND DISCONNECT THE POSITIVE BATTERY CABLE FROM THE BATTERIES FOR MORE THAN ONE MINUTE (THE TIME IS NEEDED TO DRAIN THE BRAIN'S ON-BOARD CAPACITOR). RECONNECT CABLES, BEING SURE THAT IT IS TIGHT. TOO LOOSE AND YOU WILL BURN BATTERY. IF YOU OVERTIGHTEN THE CABLES YOU CAN DAMAGE THE BATTERY'S LEAD TERMINAL. TRY AGAIN.

10. IF THE PROBLEMS CANNOT BE SOLVED BY ANY OF THESE SOLUTION CALL YOUR LOCAL DEALER'S SERVICE DEPARTMENT.

TROUBLE SHOOTING

<u>PROBLEM</u>	<u>CAUSE</u>	<u>SOLUTION</u>
NO POWER, NOTHING OPERATES	FAULTY KEY SWITCH BATTERIES NEED CHARGING FAULTY BATTERY LOOSE BATTERY CABLE MAIN CIRCUIT BREAKER TRIPPED	CONTACT LOCAL SERVICING DEALER SEE CHARGING BATTERIES REPLACE BATTERY TIGHTEN LOOSE CABLE WAIT 5 MINUTES FOR AUTO RESET DETERMINE CAUSE AND CORRECT
BRUSH MOTOR(S) DO NOT OPERATE	BRUSH DECK IS NOT DOWN FOOT PEDAL IS NOT DEPRESSED BRUSH CIRCUIT BREAKER TRIPPED CARBON BRUSHES WORN FAULTY BRUSH MOTOR OR WIRES	PUT BRUSH DECK DOWN ENGAGE FOOT PEDAL WAIT 5 MINUTS FOR AUTO RESET DETERMINE CAUSE AND CORRECT CONTACT LOCAL SERVICING DEALER CONTACT LOCAL SERVICING DEALER
DRIVE MOTOR DOES NOT OPERATE	RECHARGE SWITCH MISADJUSTED FAULTY SPEED CONTROLLER OR WIRES FAULTY DRIVE MOTOR FAULTY WIRING CARBON BRUSHES WORN	CONTACT LOCAL SERVICING DEALER CONTACT LOCAL SERVICING DEALER CONTACT LOCAL SERVICING DEALER CONTACT LOCAL SERVICING DEALER CONTACT LOCAL SERVICING DEALER
VACUUM MOTOR DOES NOT OPERATE	SQUEEGEE IS IN THE UP POSITION FAULTY VACUUM SWITCH VACUUM CIRCUIT BREAKER TRIPPED FAULTY VACUUM MOTOR	ROTATE SQUEEGEE LIFT LEVER DOWN TRY OPERATING "WHITE " TOGGLE WAIT 5 MINUTES FOR AUTO RESET DETERMINE CAUSE AND CORRECT CONTACT LOCAL SERVICING DEALER
DRIVE MOTOR RUNS INCORRECTLY	FAULTY SPEED CONTROLLER OR WIRES FAULTY POTENTIOMETER LOOSE WIRES	CONTACT LOCAL SERVICING DEALER CONTACT LOCAL SERVICING DEALER CONTACT LOCAL SERVICING DEALER
INSUFFICIENT SOLUTION FLOW	SOLUTION TANK LOW FLOW KNOB TURNED DOWN SOLUTION FILTER CLOGGED SOLUTION LINE CLOGGED SOLUTION VALVE CLOGGED	REFILL SOLUTION TANK, DRAIN RECOVERY TANK MOVE LEVER TO ON REMOVE COVER AND CLEAN REMOVE AND BLOW OUT WITH COMPRESSED AIR REMOVE COVER AND CLEAN

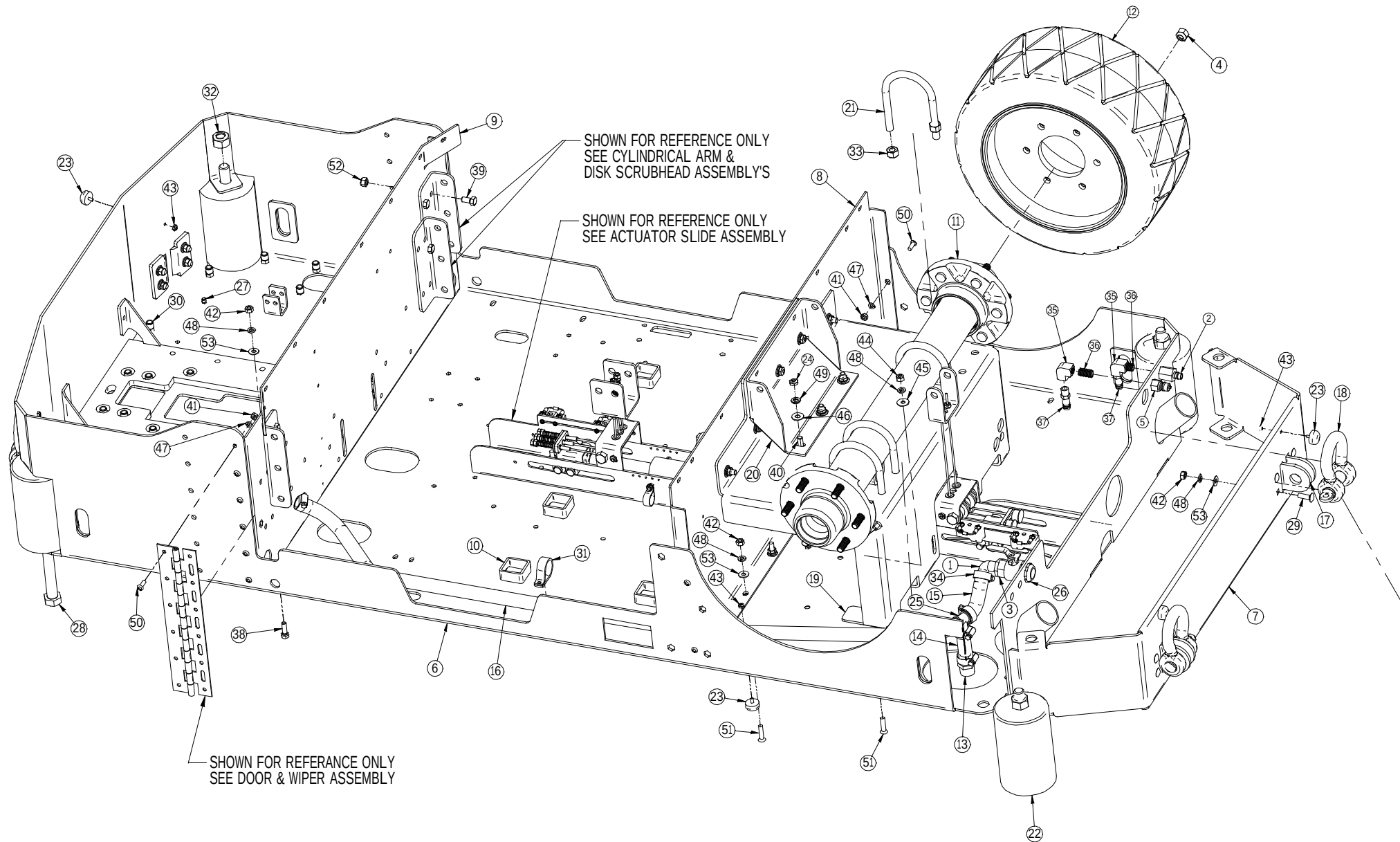
TROUBLE SHOOTING

<u>PROBLEM</u>	<u>CAUSE</u>	<u>SOLUTION</u>
NO SOLUTION FLOW	NO SOLUTION IN TANK SOLUTION VALVE OFF SOLUTION SWITCH OFF SOLUTION SCREEN CLOGGED FAULTY SOLUTION SOLENOID FAULTY SOLUTION SWITCH	FILL SOLUTION TANK ROTATE LEVER TO ON TURN SOLUTION SWITCH ON REMOVE AND CLEAN SCREEN CONTACT LOCAL SERVICING DEALER CONTACT LOCAL SERVICING DEALER
POOR WATER RECOVERY	RECOVERY TANK IS FULL BALL/SCREEN IN RECOVERY TANK IS CLOGGED VACUUM HOSE IS CLOGGED SQUEEGEE IS CLOGGED SQUEEGEE BLADE IS WORN FAULTY VACUUM HOSE VACUUM MOTOR GASKET TORN TANK GASKET FAULTY DRAIN PLUG LOOSE VAC MOTOR FAULTY BATTERY CHARGE LOW	EMPTY RECOVERY TANK REMOVE SCREEN AND CLEAN REMOVE DEBRIS REMOVE DEBRIS ROTATE OR REPLACE BLADES CONTACT LOCAL SERVICING DEALER CONTACT LOCAL SERVICING DEALER CONTACT LOCAL SERVICING DEALER TIGHTEN LID CONTACT LOCAL SERVICING DEALER CHARGE BATTERIES OVERNIGHT
POOR WATER RECOVERY ON TURNS	WIPERS WORN WIPERS CHATTER SQUEEGEE SWING IS BINDING INCORRECT SQUEEGEE SIZE	REPLACE WIPER MATERIAL TIGHTEN PIVOT POINTS CONTACT LOCAL SERVICING DEALER CONTACT LOCAL SERVICING DEALER
REAR TIRES NOISY	BEARING DRY FAULTY HUBS	GREASE BEARINGS CONTACT LOCAL SERVICING DEALER
POOR TRACTION	EXCESSIVE BRUSH PRESSURE WORN DRIVE TIRE HEAVY SOAP CONCENTRATION	REDUCE PRESSURE WITH SWITCH CONTACT LOCAL SERVICING DEALER
SHORT RUN TIME	BATTERIES RUN DOWN BATTERIES STILL DOWN BATTERIES LOW ON WATER BATTERIES OVER CYCLED	CHARGE BATTERIES TWICE CONTACT LOCAL SERVICING DEALER FILL WITH DISTILLED WATER TO 3/4" ABOVE THE LEAD PLATES CONTACT LOCAL SERVICING DEALER

MODEL
390/420/430/490/550

MACHINE PARTS SECTION

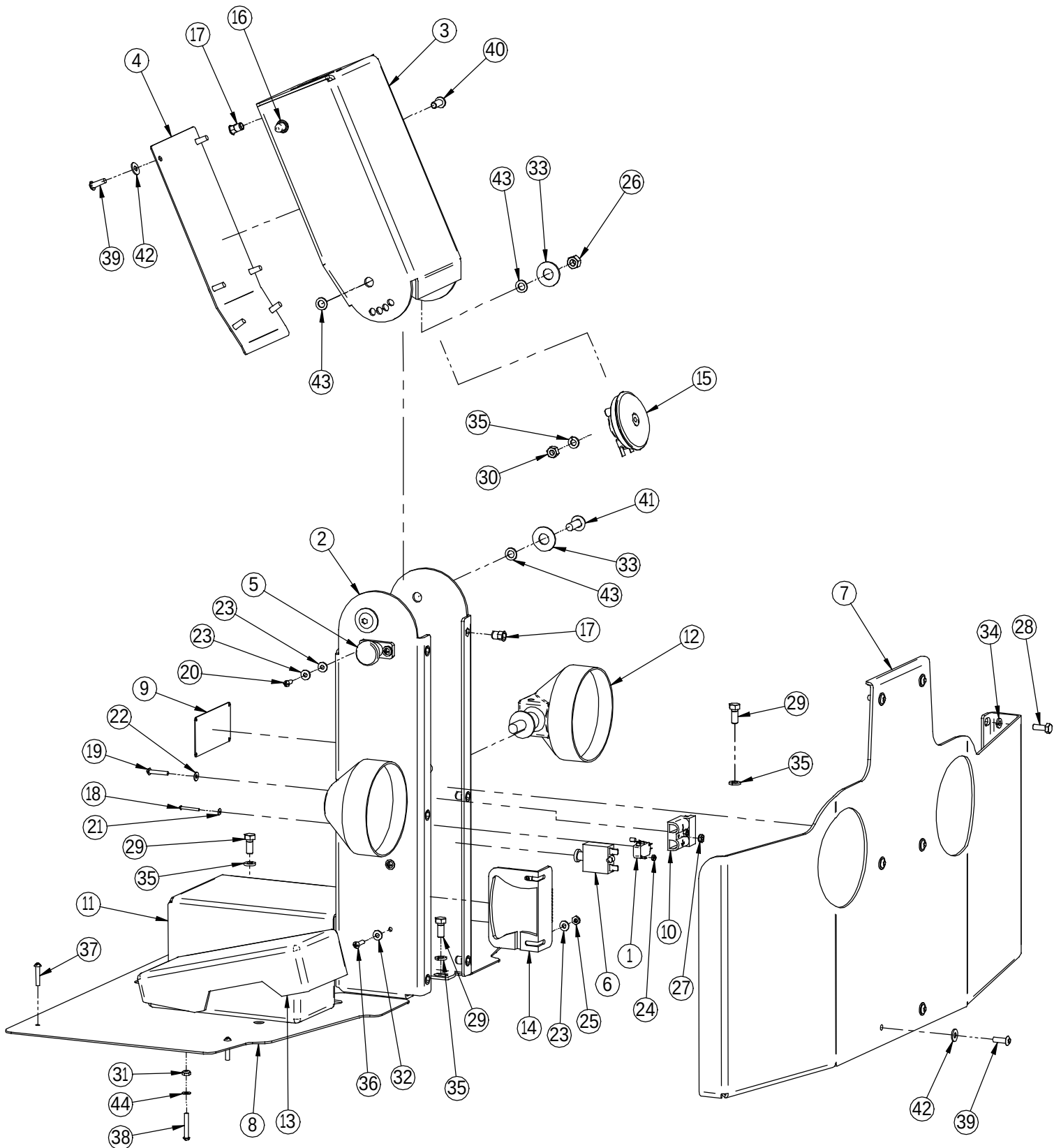
FRAME BOTTOM



FRAME BOTTOM

Item	Part Number	Title	Comments	Qty
1	21-4044	3/4" NPT TO 3/4" BARBED ELBOW		1
2	290-4179	DBL SHUT-OFF HOSE COUPLING, 1/4" PLUG		1
3	290-4550	1/2" NPT BALL VALVE		1
4	290-6187	LUG NUT, 1/2" - 20		12
5	290-8510	1/4" NPT DBL END QUICK DISCONNECT		1
6	390-1100	MAIN FRAME		1
7	390-1120	REAR BUMPER		1
8	390-1250	REAR SPLASH GUARD		1
9	390-1260	FRONT SPLASH GUARD		1
10	390-2116	BATTERY ROLLER		8
11	390-6040	390 REAR AXLE		1
12	390-6180 390-6185	REAR WHEEL (BLACK REAR WHEEL (GREY)		2
13	390-8000	.75 NPT X .75 BARB		1
14	390-8001	3/4 ID X 3.0" LG CLEAR TUBE		1
15	390-8002	3/4" ID X 3.5" LG CLEAR TUBE		1
16	390-8016	3/4" ID X 1.0" OD X 46" LG CLEAR TUBE		1
17	430-1419	SHACKLE BRACKET		8
18	430-1420	ANCHOR SHACKLE		4
19	430-5000	AXLE MOUNT		1
20	430-5001	SQUEEGEE DRAG BRACE		1
21	430-6186	1/2-20 X 6.0 " U BOLT		4
22	7-125A	ROLLER		4
23	H-01201	GROMMET		8
24	H-0129158	JNYL 3/8- 16 SS		10
25	H-02930	3/4 " PLASTIC BARB TEE		1
26	H-0700596	3/4" NPT LOCKNUT		1
27	H-1032HCN	HCN #10-32		4
28	H-11380	HCS 3/4-10 X 8-1/2		4
29	H-1174430	CB 5/16"- 18 X 1" SS		16
30	H-312HCN	HCN 5/16"-18		23
31	H-3225T5	RUBBER LOOP CLAMP		2
32	H-37039	NYLOK 3/4"- 10		4
33	H-37130	NYLOK NUT, 1/2"- 20		8
34	H-62005	CLAMP 5/8"- 1-1/2" SS		4
35	H-68565	1/4" NPTF 90 DEG ELBOW, BRASS		2
36	H-69862	1/4" NPT FT PIPE NIPPLE		2
37	H-69931	25 NPT X .50 BARB		2
38	H-70055	HCS 5/16"- 18 X 1" SS		6
39	H-70103	HCS 3/8"-16 X 3/4" SS		8
40	H-70105	HCS 3/8"- 16 X 1" SS		12
41	H-70710	HN 1/4"- 20 SS		20
42	H-70711	HN 5/16"- 18 SS		26
43	H-70858	NYLOK #10-32 SS		8
44	H-70861	NYLOK 5/16" - 18 SS		6
45	H-71016	FW 5/16" X 7/8" USS		4
46	H-71017	FW 3/8" SS		10
47	H-71063	LW 1/4" SS		20
48	H-71065	LW 5/16" SS		32
49	H-71067	LW 3/8" SS		12
50	H-73754	BHSCS 1/4 - 20 X 3/4 SS		16
51	H-73909	FHSCS 5/16"- 18 X 1-1/4" SS		10
52	H-77862	NYLOK 3/8"- 16 SS		10
53	H-78015	FW 5/16" X 3/4" SS		28

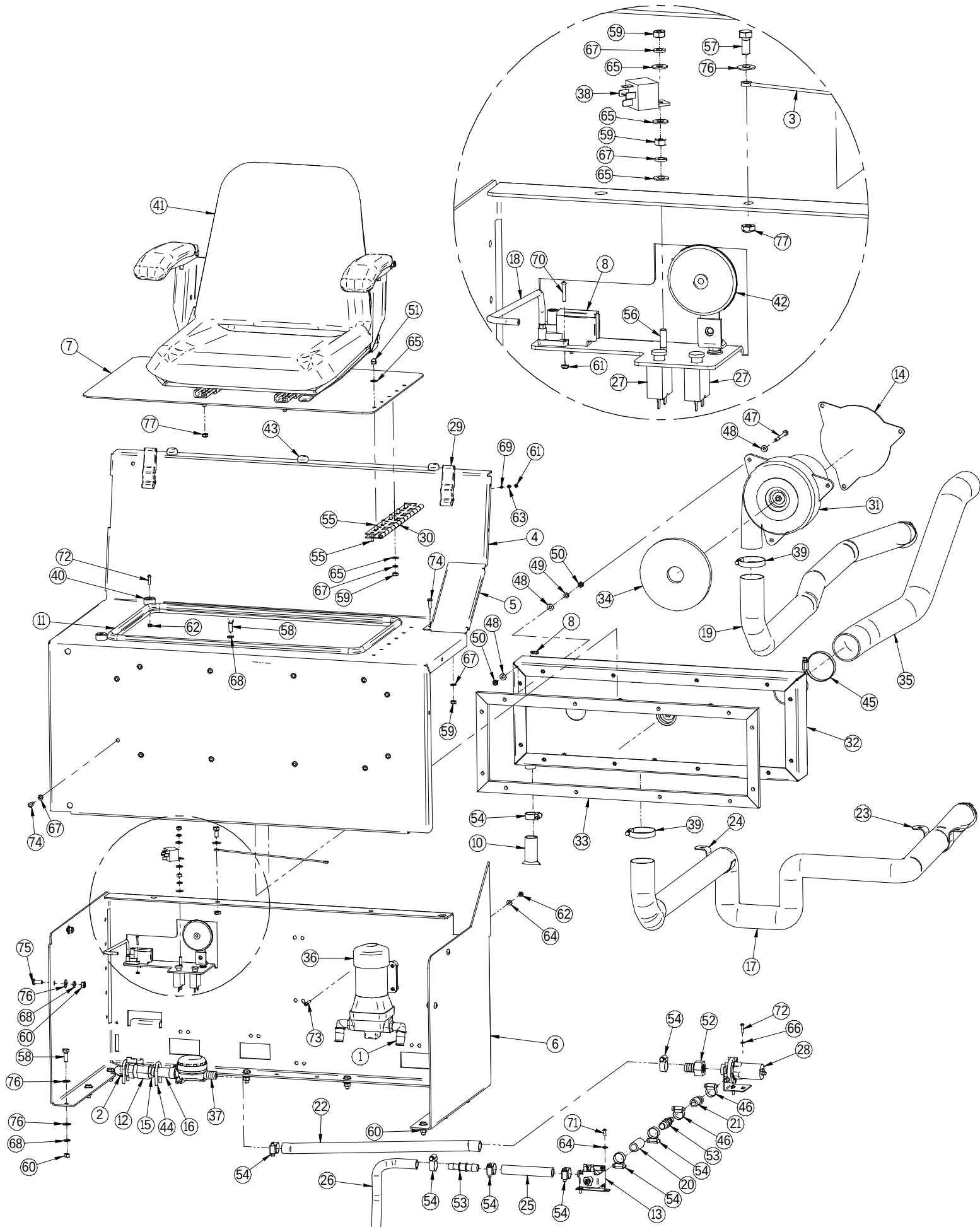
STEERING TOWER ASSEMBLY



STEERING TOWER ASSEMBLY

Item	Part Number	Title	Comments	Qty
1	21-2230	MICRO SWITCH		1
2	290-1170	LOWER STEERING TOWER		1
3	290-1171	UPPER STEERING TOWER		1
4	290-1172	COVER		1
5	290-7050	INDEX PLUNGER		1
6	290-8370	FUSE, RESETTABLE, 50 AMP, 50V DC MAX		1
7	390-1180	FRONT APRON		1
8	390-1610	NON SKID FLOOR PLATE		1
9	4-101	SERIAL NUMBER PLATE		1
10	4-260	CONNECTOR, GREY 50		1
11	430-1173	DRIVE COVER		1
12	430-2910	HEADLIGHT		2
13	5-275	FOOT PEDAL		1
14	8-292	BACKUP ALARM		1
15	8-294	HORN		1
16	8-294B	PUSH BUTTON SWITCH, SILVER		1
17	H-250HCN	HCN 1/4"-20		7
18	H-28678	RPH #4-40 X 1"		1
19	H-28902	RPH #8-32 X 1"		1
20	H-29048	RPH #10-32 X 1/2"		2
21	H-33066	FW #4 SAE		1
22	H-33072	WASHER #8 SAE		1
23	H-33074	FW #10 SAE		6
24	H-37006	NYLOK #4-40		2
25	H-37015	NYLOK #10-32		2
26	H-37024	NYLOK 3/8"-16		1
27	H-37406	KN #8-32		2
28	H-70003	HCS 1/4"- 20 X 3/4" SS		1
29	H-70053	HCS 5/16"- 18 X 3/4" SS		3
30	H-70711	HN 5/16"- 18 SS		1
31	H-70858	NYLOK #10-32 SS		1
32	H-71009	FW #10 SS		2
33	H-71021	FW 3/8" X 7/8" SS		3
34	H-71063	LW 1/4" SS		1
35	H-71065	LW 5/16" SS		4
36	H-72565	RPH #10-32 X 3/4" SS		2
37	H-72566	RPH #10-32 X 1" SS		3
38	H-73747	RPH #10-32 X 1 1/4" SS		1
39	H-73754	BHSCS 1/4 - 20 X 3/4 SS		12
40	H-73779	BHSCS 5/16-18 X 3/4"		1
41	H-73815	BHSCS 3/8"- 16 X 1" SS		2
42	H-76061	FW 1/4" NYLON		8
43	H-76063	FW 3/8" NYLON		3
44	H-78009	FW 3/16" X 7/16" SS		1

SEATING AREA ASSEMBLY



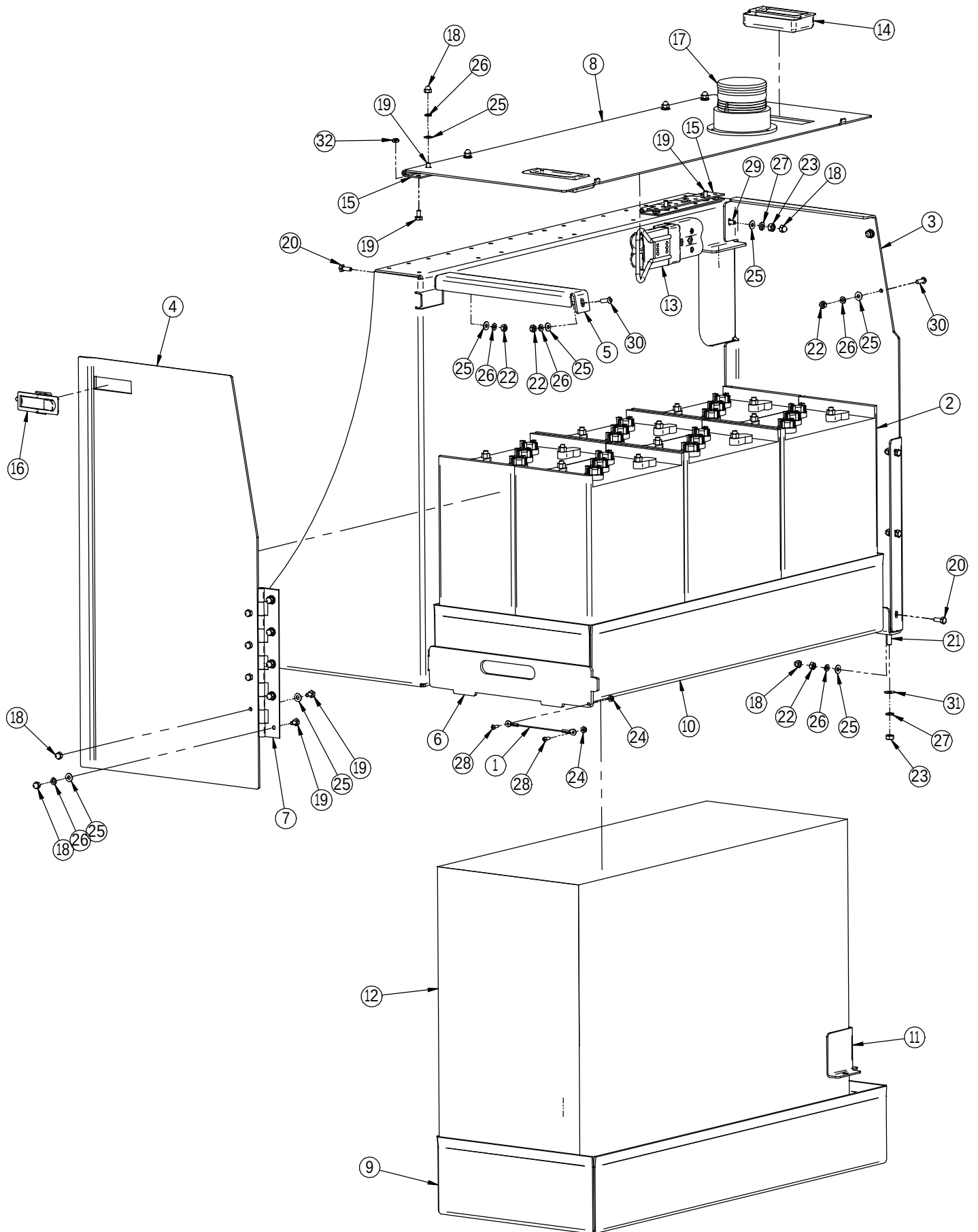
SEATING AREA ASSEMBLY

**MACHINES WITH SERIAL #46070 THRU #47007
USE VAC MOTOR P/N 250-5250**

Item	Part Number	Title	Qty
1	21-1602	3/4 BARB ELBOW	2
2	21-4044	3/4" NPT TO 3/4" BARBED ELBOW	1
3	21-7040	TANK CABLE	1
4	390-1190	SEAT PEDESTAL	1
5	390-1195	COVER	1
6	390-1205	FRONT UPRIGHT	1
7	390-1305	SEAT LID	1
8	390-2328	SWITCH, VACUUM SHUTOFF	1
9	390-2328A	VACUUM SWITCH BARB	1
10	390-3010	LOADER VALVE	1
11	390-4101	PUSH-ON RUBBER GASKET 78" LG	1
12	390-4158	3/4" NPT BALL VALVE	1
13	390-7245	ADJ SOLUTION FLOW VALVE, 36V	1
14	390-7312	VAC BOX COVER	1
15	390-8000	.75 NPT X .75 BARB	1
16	390-8004	5/8" x 7/8" x 8" LG CLEAR TUBE	1
17	390-8005	2" ID WIRE REINF FLEXIBLE GRAY HOSE 98" LG	1
18	390-8006	1/8" ID X 1/4" OD X 45" LG CLEAR TUBE	1
19	390-8007	2" ID WIRE REINF FLEXIBLE GRAY HOSE 72" LG	1
20	390-8017	CLEAR TUBE, 5/8" ID X 2-1/2" LG	1
21	390-8018	CLEAR TUBE, 3/8" ID X 1-1/2" LG	1
22	390-8019	CLEAR TUBE, 3/4" ID X 19" LG	1
23	390-8020	2-1/2" DIA 2 HOLE PIPE STRAP	3
24	390-8021	1-1/2" DIA 1 HOLE PIPE STRAP	3
25	390-8022	CLEAR TUBE, 5/8" ID X 5.0" LG	1
26	390-8023	CLEAR WIRE REINF. TUBE, 1/2" ID X 25" LG	1
27	390-8350	FUSE, RESETTABLE, 30 AMP, 50V DC MAX	2
28	390-8500	PUMP 36V DC (OPTIONAL)	1
29	4-124	LATCH	2
30	430-1225	13" SS HINGE	1
31	430-2500	VAC MOTOR, 15HP, 36V, (95" LIFT/97 CFM)	2
32	430-3000	VAC BOX	1
33	430-3001	VAC BOX GASKET	1
34	430-3002	VAC MOTOR GASKET	2
35	430-7213	2-1/2" ID WIRE REINF FLEX HOSE 41-1/2" LG	1
36	430-8910	PUMP, WATER JET, 36V	1
37	430-9130	INLINE FILTER	1
38	5-293	15 AMP RELAY	1
39	5-719	CLAMP 1 9/16 - 2 1/2 " SS	4
40	7-112C	1.0 OD X .50 GROMMET	2

Item	Part Number	Title	Qty
41	8-142	SEAT HI-TECH 8" MTG	1
42	8-294	HORN	1
43	H-01201	GROMMET	3
44	H-01519	1/4-20 X 1/2 " U BOLT	2
45	H-0427637	CLAMP 2" - 3"	1
46	H-081	CLAMP 7/16"- 25/32" SS	2
47	H-13015	HCS 1/4"-20 X 3"	6
48	H-33078	FW 1/4" SAE	18
49	H-33618	LW 1/4"	12
50	H-36102	HN 1/4"-20	12
51	H-37708	1/4-20 LC ACORN NUT	5
52	H-53722	ADAPTER, 3/4" NPT X 3/4" BARB	1
53	H-5466	1/2" to 5/8" COUPLING	2
54	H-62005	CLAMP 5/8"- 1-1/2" SS	9
55	H-70001	HCS 1/4"-20 X 1/2 SS"	11
56	H-70005	HCS 1/4"- 20 X 1" SS	2
57	H-70053	HCS 5/16"- 18 X 3/4" SS	13
58	H-70055	HCS 5/16"- 18 X 1" SS	16
59	H-70710	HN 1/4"- 20 SS	12
60	H-70711	HN 5/16"- 18 SS	14
61	H-70854	NYLOK #4-40 SS	6
62	H-70858	NYLOK #10-32 SS	9
63	H-71004	FW 1/8" X 5/16" SS	4
64	H-71009	FW #10 SS	6
65	H-71013	FW 1/4" X 5/8" SS	17
66	H-71059	LW #10, SS	2
67	H-71063	LW 1/4" SS	24
68	H-71065	LW 5/16" SS	33
69	H-72486	PPH #4-40 X 1/2" S/S	4
70	H-72489	RPH #4-40 X 3/4"	2
71	H-72563	RPH #10-32 X 1/2" SS	2
72	H-72565	RPH #10-32 X 3/4" SS	4
73	H-73747	RPH #10-32 X 1 1/4" SS	3
74	H-73754	BHSCS 1/4 - 20 X 3/4 SS	14
75	H-73779	BHSCS 5/16-18 X 3/4"	4
76	H-78015	FW 5/16" X 3/4" SS	31
77	H-NJ05C	JNYL 5/16"- 18 SS	5

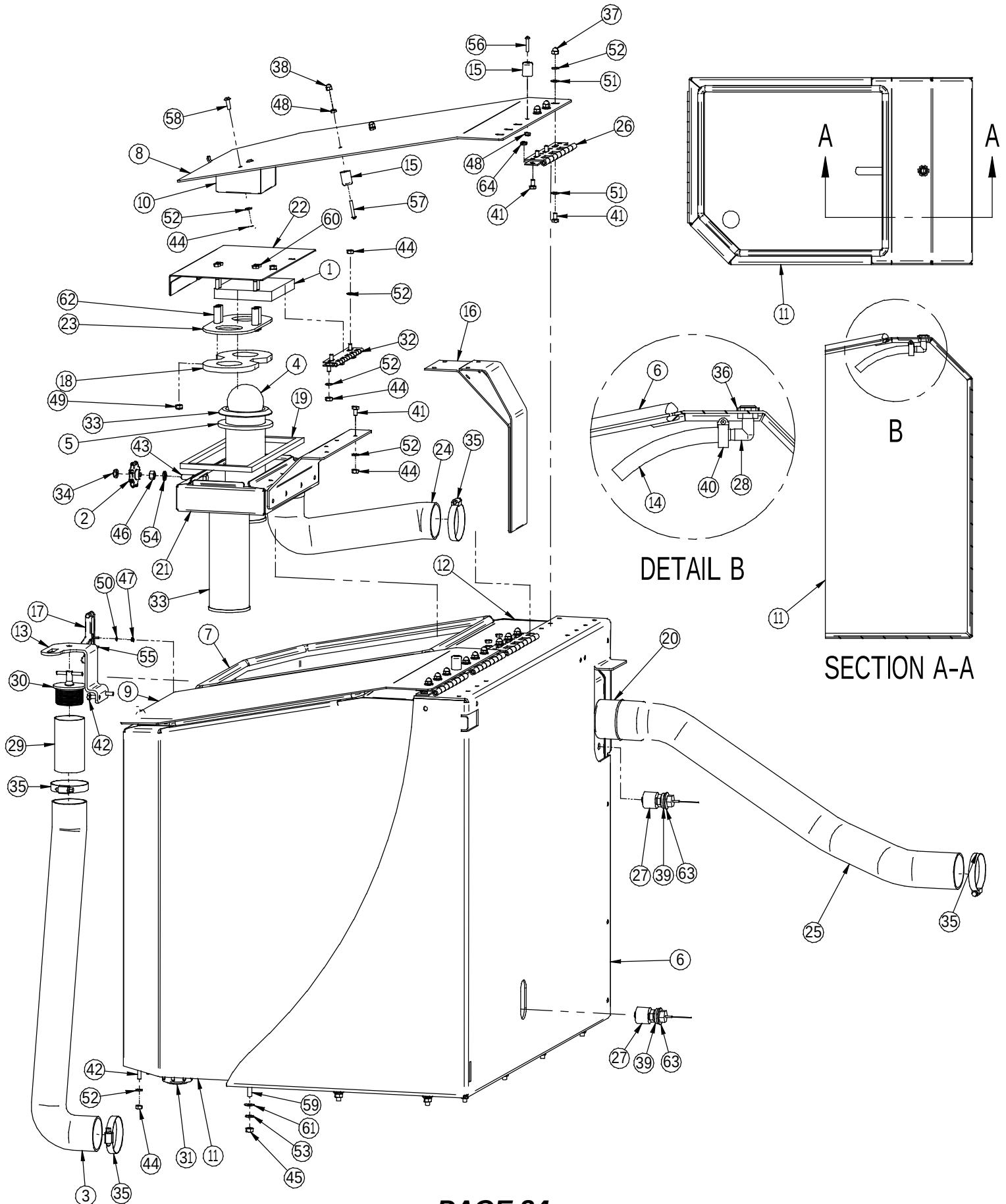
BATTERY COMPARTMENT



BATTERY COMPARTMENT

Item	Part Number	Title	Comments	Qty
1	21-4060	6" LANYARD		1
2	290-2110	L 16 H BATTERY 6 VOLT 395 AH		6
3	390-1140	LEFT SIDE PANEL		1
4	390-1142	LOWER RIGHT SIDE PANEL		1
5	390-1143	UPPER RIGHT SIDE PANEL		1
6	390-1165	BATTERY HOLDING BAR		1
7	390-1225	11" SS HINGE		1
8	390-1300	BATTERY LID		1
9	390-1480	MOUNTED BATTERY TRAY		1
10	390-1485	REMOVABLE BATTERY TRAY		1
11	390-1490	BATTERY BRACKET		1
12	390-2110	BATTERY, 36-VOLT 400 AH	STANDARD 175	1
13	390-2570	BATTERY QUICK DISCONNECT	INDUSTRIAL 350	1
14	4-127	HANDLE		2
15	5-122	HINGE 8" SS		2
16	5-130	DOOR LATCH		1
17	8-293	STROBE LIGHT		1
18	H-37708	1/4-20 LC ACORN NUT		20
19	H-70001	HCS 1/4"-20 X 1/2 SS"		17
20	H-70003	HCS 1/4"- 20 X 3/4" SS		4
21	H-70055	HCS 5/16"- 18 X 1" SS		3
22	H-70710	HN 1/4"- 20 SS		7
23	H-70711	HN 5/16"- 18 SS		7
24	H-70858	NYLOK #10-32 SS		2
25	H-71013	FW 1/4" X 5/8" SS		22
26	H-71063	LW 1/4" SS		16
27	H-71065	LW 5/16" SS		7
28	H-72563	RPH #10-32 X 1/2" SS		2
29	H-72716	FHP 1/4"- 20 X 3/4"		4
30	H-73754	BHSCS 1/4 - 20 X 3/4 SS		3
31	H-78015	FW 5/16" X 3/4" SS		5
32	H-NJ04C	JNYL 1/4" - 20 SS		5

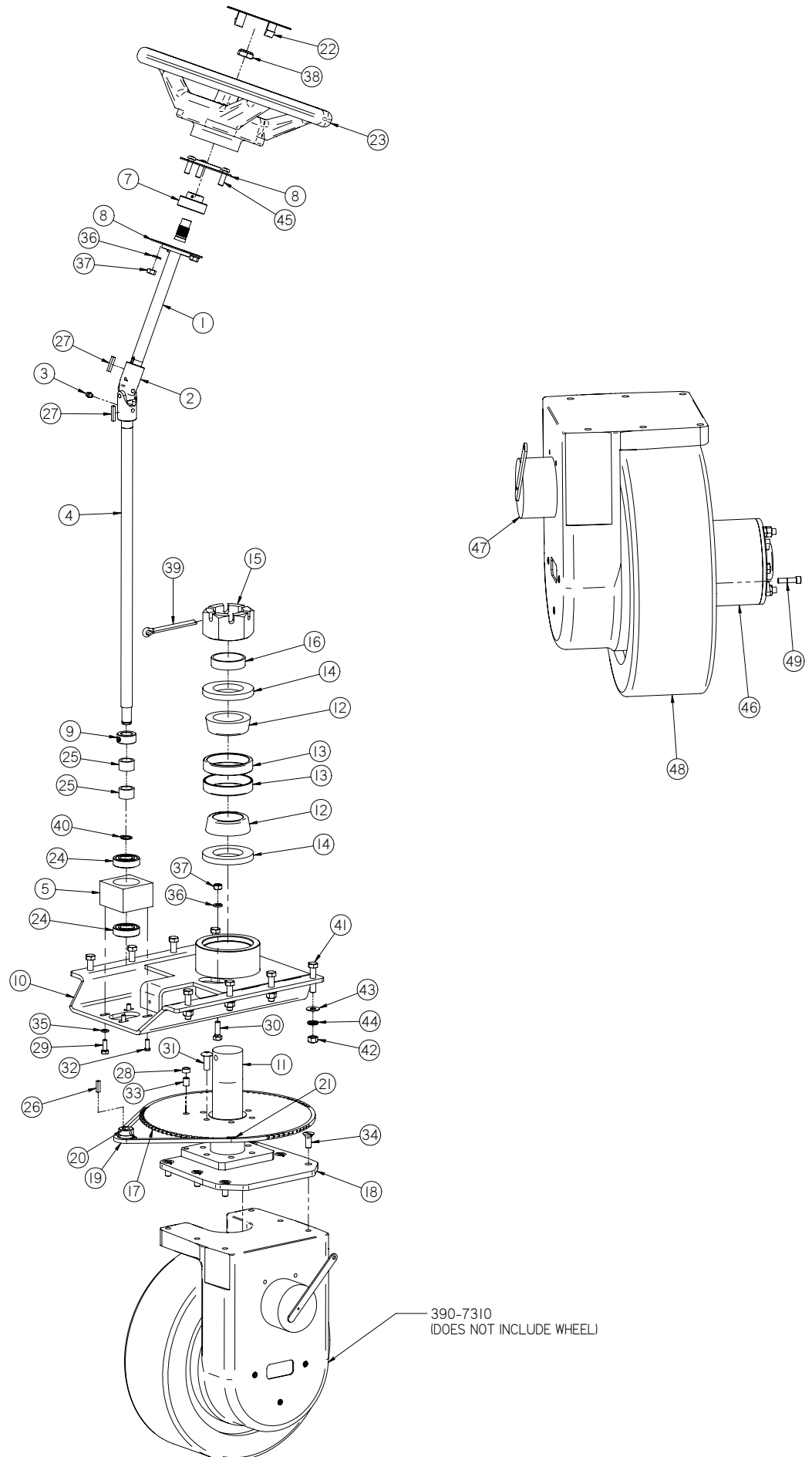
TANK ASSEMBLIES



TANK ASSEMBLIES

Item	Part Number	Title	Comments	Qty
1	21-4086	VAC BOX FILTER		1
2	21-7205	PALM GRIP KNOB, 3/8-24		1
3	290-7212	DRAIN HOSE	290-7212 IS REPLACED WITH 290-7210	1
4	38-712	OVERFILL SHUTOFF BALL		1
5	38-738	STRAINER GASKET		2
6	390-1200	REAR UPRIGHT		1
7	390-4100	PUSH-ON RUBBER GASKET 67" LG		2
8	390-4112	RECOVERY TANK LID		1
9	390-4113	SOLUTION TANK LID		1
10	390-4115	REC TANK SHIELD		1
11	390-4140	SOLUTION TANK		1
12	390-7010	RECOVERY TANK		1
13	390-7185	DRAIN HOSE BRACKET		1
14	390-8008	1/2" ID X 3/4" OD X 6" LG CLEAR TUBE		1
15	390-8008	RECESSED BUMPER		4
16	390-8015	TANK STRAP		1
17	4-124	HOOD LATCH		2
18	430-3003	VAC SCREEN LID GASKET		1
19	430-3004	VAC SCREEN BOX GASKET		1
20	430-4072	2-1/2" HOSE CUFF		1
21	430-4110	VAC SCREEN BOX		1
22	430-4111	VAC SCREEN BOX LID		1
23	430-4113	VAC SCREEN LID		1
24	430-7212	2-1/2" ID WIRE REINF FLEXIBLE BLACK HOSE 17" LG		1
25	430-7213	2-1/2" ID WIRE REINF FLEXIBLE BLACK HOSE 41-1/2" LG		1
26	5-122	HINGE 8" SS		4
27	5-226	FLOAT VALVE SWITCH		2
28	5-447	1/2 NPT X 1/2" BARB ELBOW		1
29	5-720	DRAIN HOSE END TUBE		1
30	5-727	DRAIN HOSE PLUG		1
31	7-414A	BULKHEAD FITTING, 3/4" FNPT		1
32	8-180	6-7/8" SS HINGE		1
33	8-911	SCREEN STRAINER		2
34	H-00531	JNYL 3/8- 24 SS		1
35	H-0427637	CLAMP 2" - 3"		5
36	H-07005	1/2" NPT LOCKNUT		1
37	H-37708	1/4-20 LC ACORN NUT		12
38	H-37708	1/4-20 LC ACORN NUT		2
39	H-4440040	.375 ID X 1.125 OD RUBBER WASHER		2
40	H-62005	CLAMP 5/8"- 1-1/2" SS		1
41	H-70001	HCS 1/4"-20 X 1/2 SS"		17
42	H-70003	HCS 1/4"- 20 X 3/4" SS		14
43	H-70145	HCS 3/8"- 24 X 1 3/4" SS		1
44	H-70710	HN 1/4"- 20 SS		23
45	H-70711	HN 5/16"- 18 SS		10
46	H-70732	HN 3/8"- 24 SS		1
47	H-70854	NYLOK #4-40 SS		4
48	H-70858	NYLOK #10-32 SS		4
49	H-70860	NYLOK 1/4"- 20 SS		4
50	H-71004	FW #4 X .3125 SS		4
51	H-71013	FW 1/4" X 5/8" SS		25
52	H-71063	LW 1/4" SS		35
53	H-71065	LW 5/16" SS		10
54	H-71067	LW 3/8" SS		1
55	H-72486	PPH #4-40 X 1/2" S/S		4
56	H-72566	RPH #10-32 X 1" SS		2
57	H-73747	RPH #10-32 X 1 1/4" SS		1
58	H-73754	BHSCS 1/4 - 20 X 3/4 SS		2
59	H-75661	FPH 5/16"- 18 X 1" SS		10
60	H-77010	HCS 1/4"- 20 X 175" SS		4
61	H-78015	FW 5/16" X 3/4" SS		10
62	H-92320	.252 ID X .50 OD X 1.25 LG SPACER		4
63	H-95611	FW 1/2" PVC		2
64	H-NJ04C	JNYL 1/4" - 20 SS		6

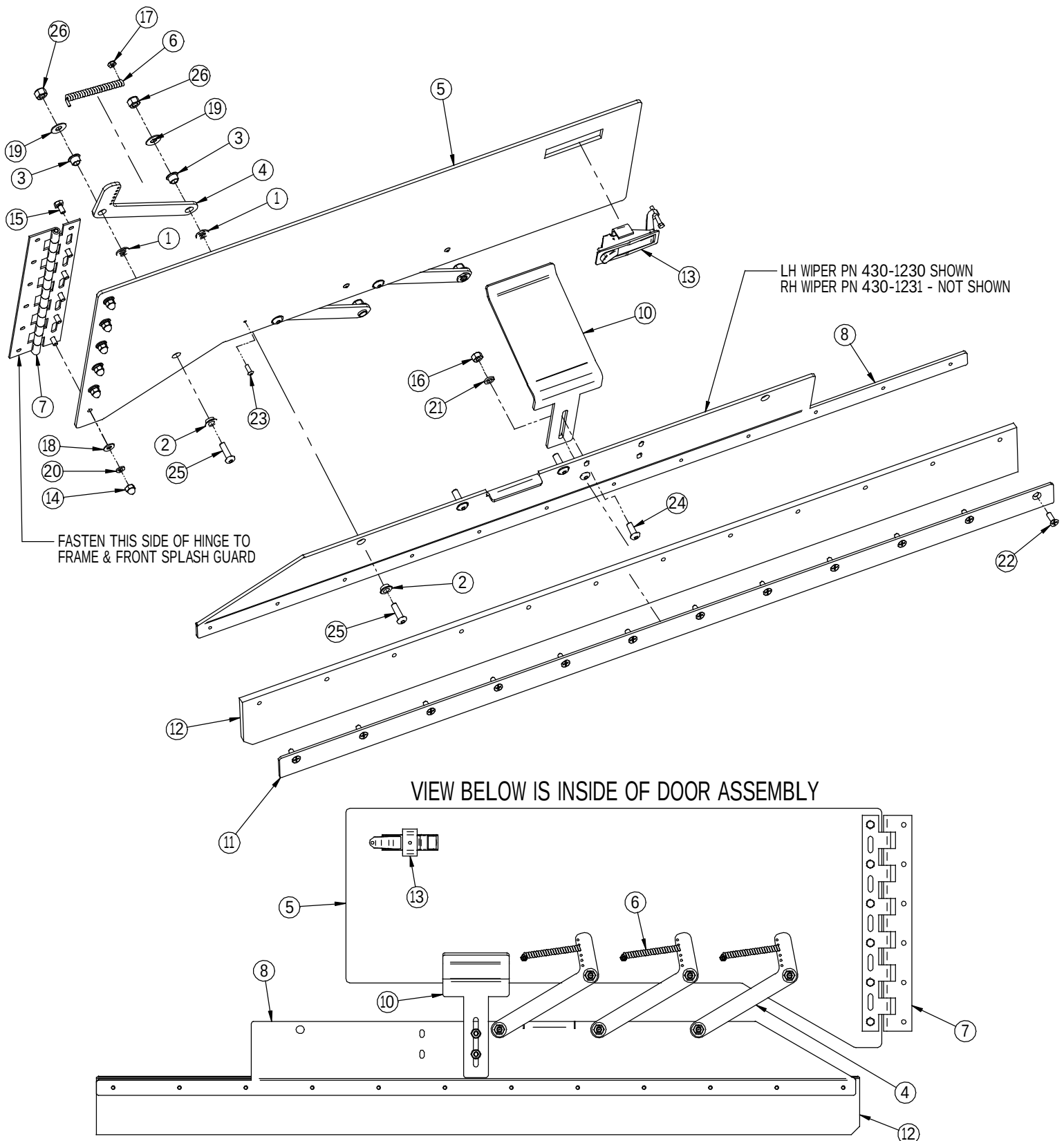
STEERING/TRACTION ASSEMBLY



STEERING/TRACTION ASSEMBLY

Item	Part Number	Title	Comments	Qty
1	290-7090	STEERING SHAFT, UPPER		1
2	290-7110	U-JOINT		1
3	290-7111	1/4-28 ZERK FITTING		1
4	390-7120	STEERING SHAFT, LOWER		1
5	390-7230	BEARING BLOCK		1
6	390-7310	WHEEL DRIVE ASS'Y		1
7	4-352	BEARING		1
8	4-364A	FLANGE, 1.75" ID		2
9	4-410A	3/4" SHAFT COLLAR W/SETSCREW		1
10	430-7313	DROP PLATE ASS'Y		1
11	430-7316	PIVOT SHAFT		1
12	430-7317	TAPERED ROLLER BEARING		2
13	430-7318	BEARING CUP		2
14	430-7319	STEERING SHAFT SEAL		2
15	430-7321	SLOTTED NUT, 2.0 - 12		1
16	430-7322	PRE LOAD SLEEVE		1
17	430-7325	90 TOOTH STEERING SPROCKET		1
18	430-7326	PIVOT PLATE		1
19	430-7327	STEERING CHAIN		1
20	5-826	10 TOOTH SPROCKET		1
21	5-831	MASTER LINK		1
22	8-701A	STEERING COVER		1
23	8-703	STEERING WHEEL		1
24	8-723B	BEARING		2
25	8-731	SPACER		2
26	H-00270	3/16" X 3/4" KEY		1
27	H-01125	3/16" X 1" KEY		2
28	H-05233	PVC TUBING		1
29	H-13003	HCS 1/4"-20 X 3/4"		2
30	H-13055	HCS 5/16"-18 X 1"		2
31	H-24103	BHSCS 3/8"- 24 X 1"		6
32	H-24617	SHCS, LOW HEAD, 1/4- 20 X 5/8"		2
33	H-25595	SS CP 3/8"- 24 X 1/2"		1
34	H-28121	FHS 3/8-16 X 1"		6
35	H-33618	LW 1/4"		2
36	H-33620	LW 5/16"		5
37	H-36104	HN 5/16"-18		5
38	H-37038	JNYL 5/8"- 11		1
39	H-65129	3/16" X 2-1/2" COTTER PIN		1
40	H-68013	SNAPRING 5/8"		1
41	H-70145	HCS 3/8"- 24 X 1 3/4" SS		8
42	H-70732	HN 3/8"- 24 SS		8
43	H-71017	FW 3/8" SS		8
44	H-71067	LW 3/8" SS		8
45	H-94071	BHSCS 5/16-18 X 1		3
46	390-7311	36V, 4HP, MOTOR		1
47	390-7323	ELECTRIC BRAKE, 36V		1
48	430-7315 430-7320	BLACK TIRE GREY TIRE		1
49	H-23806	SHCS 1/4-28 X 1" GRADE 8 ALLOY		10

SIDE DOOR & WIPER ASSEMBLY (LEFT SIDE SHOWN)



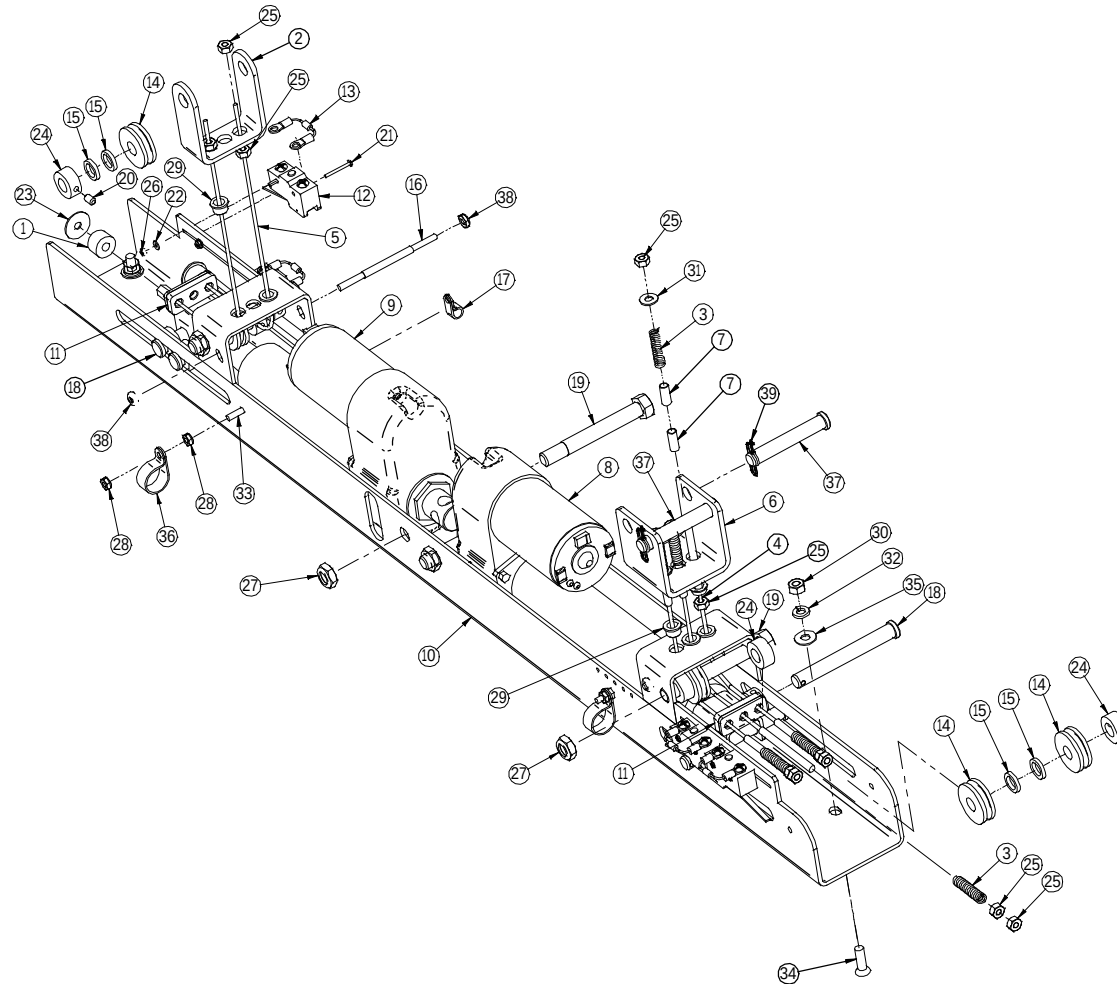
SIDE DOOR & WIPER ASSEMBLY

Item	Part Number	Title	Comments	Qty
1	290-1237	FW BRONZE .75 OD X .375 IDX .125 THK		4
2	290-1243	3/8" ID, 1/2" OD, 1/4" LG BEARING		6
3	290-1245	3/8" ID, 1/2" OD, 3/8" LG, FLANGE BEARING		6
4	390-1050	WIPER ARM		3
5	390-1220	DOOR		1
6	390-1221	SPRING		3
7	430-1225	13" SS HINGE		1
8	430-1230	LEFT WIPER		1
9	430-1231	RIGHT WIPER	(NOT SHOWN)	1
10	430-1235	WIPER LIFTING BRACKET		1
11	430-4030	WIPER BAND		1
12	430-4035	WIPER BLADE	L - Linatex / G - Gum / U - Urethane	1
13	5-130	DOOR LATCH		1
14	H-37708	1/4-20 LC ACORN NUT		6
15	H-70001	HCS 1/4"-20 X 1/2 SS"		6
16	H-70711	HN 5/16"- 18 SS		2
17	H-70858	NYLOK #10-32 SS		3
18	H-71013	FW 1/4" X 5/8" SS		6
19	H-71017	FW 3/8" SS		6
20	H-71063	LW 1/4" SS		6
21	H-71065	LW 5/16" SS		2
22	H-72716	FHP 1/4"- 20 X 3/4"		12
23	H-73743	BHSCS 10-32 X 1/2" SS		3
24	H-73779	BHSCS 5/16-18 X 3/4"		2
25	H-73780	BHSCS 5/16-18 X 1		6
26	H-77862	NYLOK 3/8"- 16 SS		6

NOTE: RIGHT SIDE DOOR & WIPER ASSEMBLY
USE THE SAME PARTS EXCEPT ITEM 8.
QTY'S ABOVE ARE FOR ONE SIDE ONLY

ACTUATOR SLIDE ASSEMBLY

SETUP WITH SERIAL #390703 & LOWER



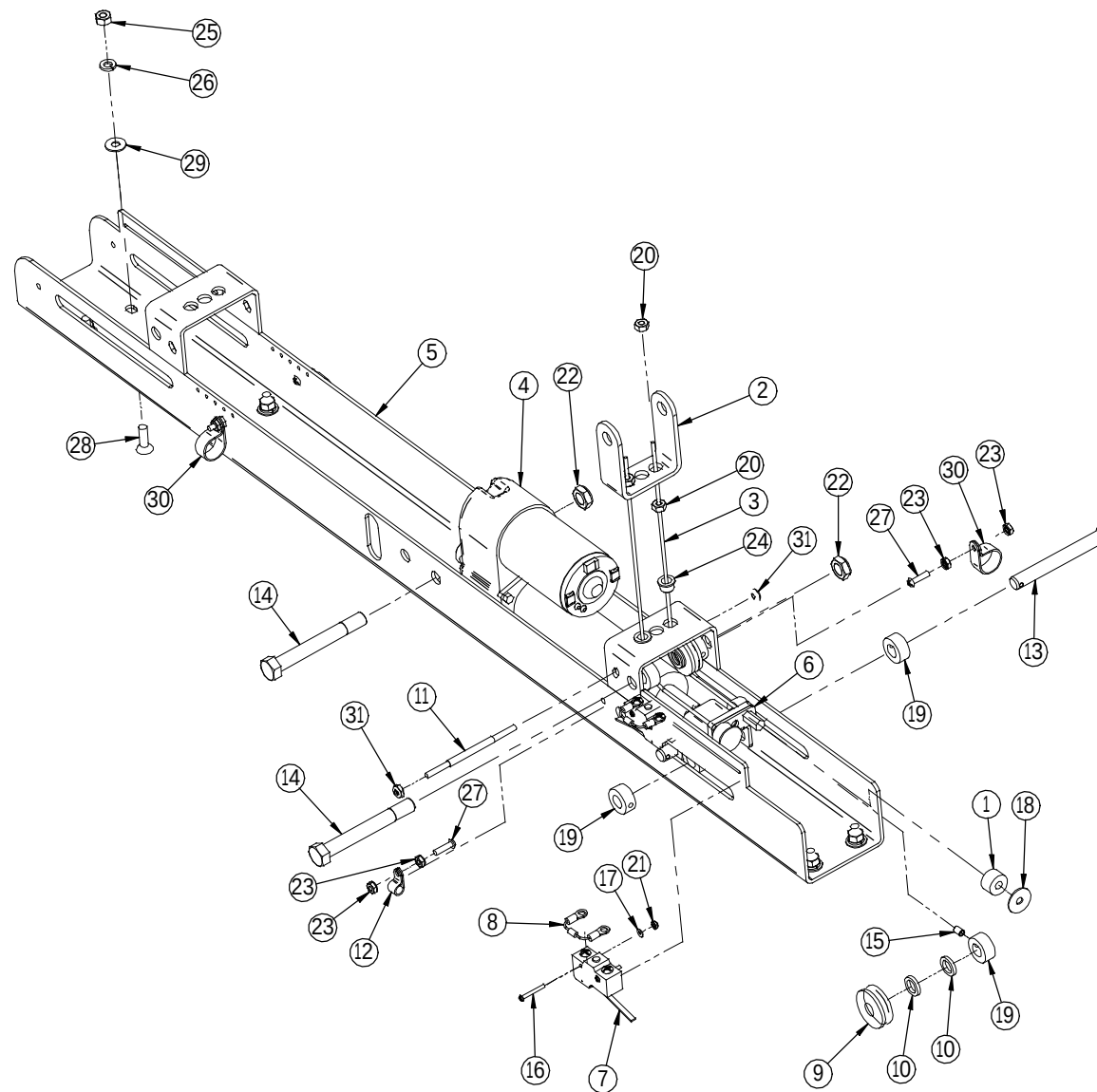
ACTUATOR SLIDE ASSEMBLY

SETUP WITH SERIAL #390703 & LOWER

Item	Part Number	Title	Comments	Qty
1	21-7690	POLYURETHANE SPRING		2
2	290-4010	LIFT BRACKET		1
3	290-7712	COMPRESSION SPRING		8
4	290-7713	SCRUBHEAD LIFT CABLE 12.25"		3
5	290-7890	SQUEEGEE LIFT CABLE		2
6	390-4015	LIFT BRACKET		1
7	390-8250	.312 OD X .25 ID X .75 LG		4
8	430-2210	ACTUATOR, (201) LONG BARREL		1
9	430-2240	ACTUATOR, (101) SHORT BARREL		1
10	430-7660	ACTUATOR CHANNEL		1
11	430-7710	CABLE TROLLEY		2
12	5-223	LIMIT SWITCH		4
13	5-270	EMF SUPP DIODE		4
14	5-772	PULLEY, NYLON		5
15	H-01320	FW 1/2" ID X 1/8" THICK NYLON		8
16	H-01321	DOUBLE ENDED STUD, 1/4-20 X 4" SS		2
17	H-02239	3/8" NYLON LOOP CLAMP		1
18	H-02783	1/2" X 4" CLEVIS PIN		4
19	H-11219	HCS 1/2"- 13 X 4.0"		4
20	H-25328	SSS CP 1/4"-20 X 3/8"		8
21	H-28679	PPH #4-40 X 1"		8
22	H-33066	FW #4 SAE		8
23	H-33207	FW 1/4" X 1"		2
24	H-33374	SHAFT COLLAR, 1/2" ID		13
25	H-36152	HN 1/4"- 28		16
26	H-37006	NYLOK #4-40		8
27	H-37032	JAM NYLOK NUT, 1/2"- 13		4
28	H-37408	KN #10-32		8
29	H-6389	FLANGED BUSHING 3/8" ID X 5/8" OD, NYLON		5
30	H-70711	HN 5/16"- 18 SS		6
31	H-71013	FW 1/4" X 5/8" SS		3
32	H-71065	LW 5/16" SS		6
33	H-72565	RPH #10-32 X 3/4" SS		3
34	H-73908	FHSCS 5/16"- 18 X 1-1/4" SS		5
35	H-78015	FW 5/16" X 3/4" SS		6
36	H-78LC	7/8" NYLON LOOP CLAMP		3
37	H-CP238	1/2" X 3" CLEVIS PIN		2
38	H-NJ04C	JNYL 1/4" - 20 SS		4
39	H-RUE22	1/2" RUE RING COTTER		2

ACTUATOR SLIDE ASSEMBLY

SETUP WITH SERIAL #390704 & GREATER



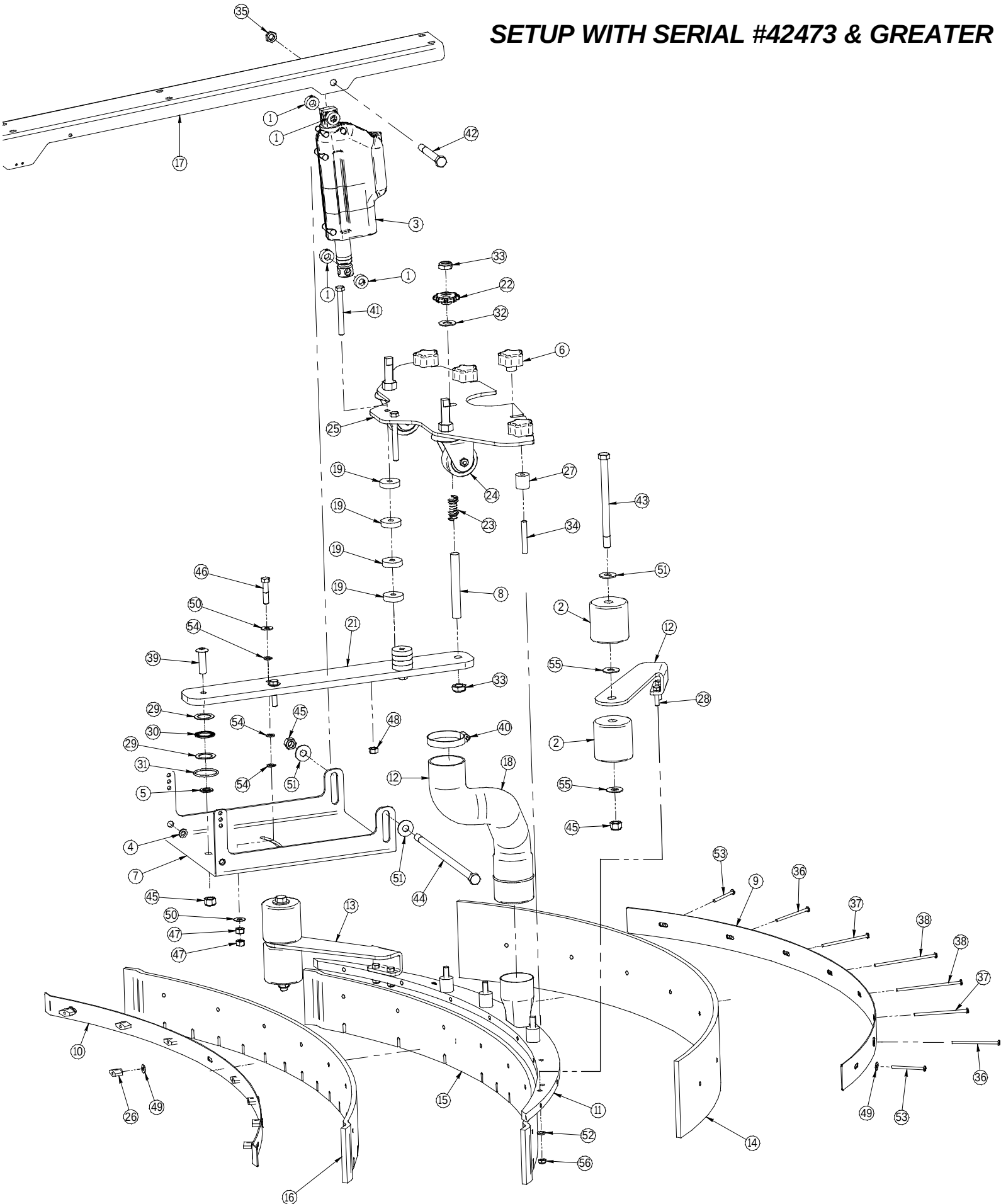
ACTUATOR SLIDE ASSEMBLY

SETUP WITH SERIAL #390704 & GREATER

Item	Part Number	Title	Comments	Qty
1	21-7690	POLYURETHANE SPRING		2
2	290-4010	LIFT BRACKET		1
3	290-7890	SQUEEGEE LIFT CABLE		2
4	430-2240	ACTUATOR, (101) SHORT BARREL		1
5	430-7660	ACTUATOR CHANNEL		1
6	430-7710	CABLE TROLLEY		1
7	5-223	LIMIT SWITCH		2
8	5-270	EMF SUPP DIODE		2
9	5-772	PULLEY, NYLON		2
10	H-01320	FW 1/2" ID X 1/8" THICK NYLON		6
11	H-01321	DOUBLE ENDED STUD, 1/4-20 X 4" SS		1
12	H-02239	3/8" NYLON LOOP CLAMP		1
13	H-02783	1/2" X 4" CLEVIS PIN		2
14	H-11219	HCS 1/2"- 13 X 4.0"		2
15	H-25328	SSS CP 1/4"-20 X 3/8"		8
16	H-28679	PPH #4-40 X 1"		4
17	H-33066	FW #4 SAE		4
18	H-33207	FW 1/4" X 1"		2
19	H-33374	SHAFT COLLAR, 1/2" ID		8
20	H-36152	HN 1/4"- 28		4
21	H-37006	NYLOK #4-40		4
22	H-37032	JAM NYLOK NUT, 1/2"- 13		2
23	H-37408	KN #10-32		6
24	H-6389	FLANGED BUSHING 3/8" ID X 5/8" OD, NYLON		2
25	H-70711	HN 5/16"- 18 SS		8
26	H-71065	LW 5/16" SS		8
27	H-72565	RPH #10-32 X 3/4" SS		4
28	H-73908	FHSCS 5/16"- 18 X 1-1/4" SS		8
29	H-78015	FW 5/16" X 3/4" SS		8
30	H-78LC	7/8" NYLON LOOP CLAMP		3
31	H-NJ04C	JNYL 1/4" - 20 SS		2

SQUEEGEE ASSEMBLY

SETUP WITH SERIAL #42473 & GREATER

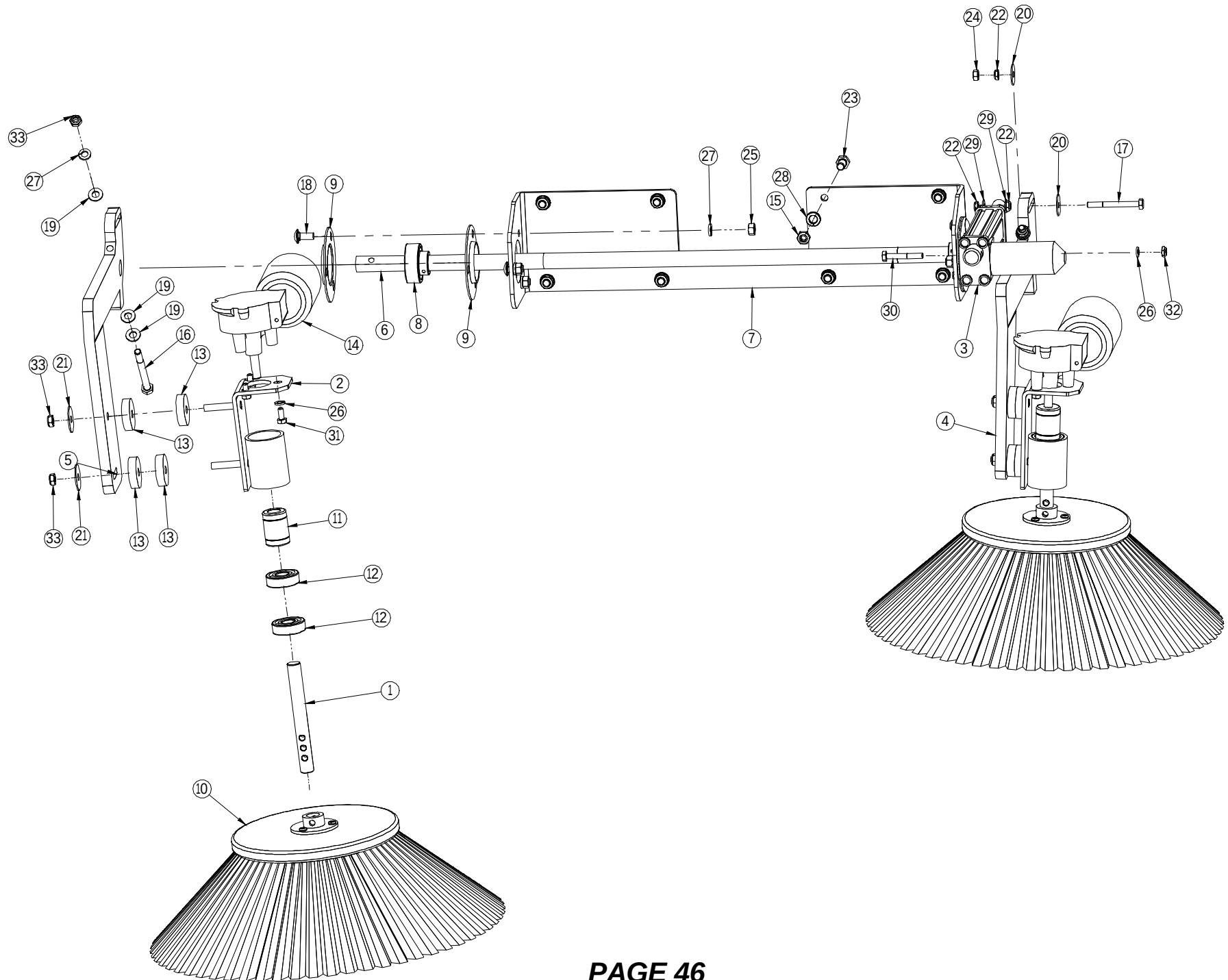


SQUEEGEE ASSEMBLY

Item	Part Number	Title	Comments	Qty
1	10436-03660	1/2" ID X 7/16" LG SETSCREW SHAFT COLLAR		4
2	21-1127	ROLLER		4
3	250-2210	4 INCH STROKE 36 VOLT ACTUATOR		1
4	290-1233	3/8" ID, 1/2" OD, 1/4" LG BEARING		2
5	290-1248	FW BRONZE 1/2" ID X 1" OD X 1/8" TH		1
6	290-5786	STAR KNOB		4
7	390-7131	SQUEEGEE SWING PLATE		1
8	390-7150	STUD 5/8-18 X 5" SS		1
9	390-7160	SQUEEGEE BAND, REAR		1
10	390-7170	SQUEEGEE BAND, FRONT		1
11	390-7181	48" SQUEEGEE BODY		1
12	390-7190	WHEEL BRACKET - LH		1
13	390-7191	WHEEL BRACKET - RH		1
14 ✱	390-754	REAR SQUEEGEE BLADE	390-754G = GUM RUBBER 390-754L = LINATEX	1
15 ✱	390-755	SQUEEGEE BLADE, FRONT, SINGLE VAC SYSTEM	390-755G = GUM RUBBER 390-755L = LINATEX	1
16 ✱	390-756	SQUEEGEE BLADE, FRONT, DUAL VAC SYSTEM	390-756G = GUM RUBBER 390-756L = LINATEX	1
17	390-7665	CHANNEL		1
18	390-8014	2-1/2" ID WIRE REINF FLEXIBLE GRAY HOSE 29" LG		1
19	4-446	GROMMET-3/8 ID X 1-1/2 OD X .375		8
20*	430-4072	2-1/2" HOSE CUFF		1
21	430-7150	SQUEEGEE TRAIL ARM		1
22	430-7156	PALM GRIP KNOB, 5/8-18		1
23	430-7157	SPRING		1
24	430-7570	CASTER		2
25	430-7610	SQUEEGEE TRIANGLE PLATE		1
26	5-418A	CLAMPING KNOB		8
27	5-846	PIVOT SHAFT		4
28	70057	HCS 5/16"- 18 X 1-1/4"		4
29	8-713	1 1/2" THRUST WASHER		2
30	8-714	THRUST BEARING		1
31	8-715	O-RING		1
32	H-00279	FW 5/8" PVC		1
33	H-00291	NYL 5/8"- 18 SS		2
34	H-00568	STUD 3/8"- 16 X 2 1/2" SS		4
35	H-0129159	JNYL, 1/2"-13, 18-8 SS		1
36	H-0170381	PPH 1/4-20 X 3-1/2" SS		2
37	H-0170382	PPH 1/4-20 X 4" SS		2
38	H-0170383	PPH 1/4-20 X 5" SS		2
39	H-0171304	BHSCS 1/2- 13 X 1-3/4" SS		1
40	H-0427637	CLAMP 2" - 3"		1
41	H-10055	HCS 3/8"- 24 X 3.5" SS		2
42	H-11219	HCS 1/2"- 13 X 4.0"		1
43	H-11219	HCS 1/2"- 13 X 7.0"		2
44	H-13236	HCS 1/2 - 13 X 12"		1
45	H-37030	NYLOK 1/2"-13		4
46	H-70110	HCS 3/8"- 16 X 1-3/4" SS		2
47	H-70712	HN 3/8"-16 SS		4
48	H-70732	HN 3/8"- 24 SS		2
49	H-71013	FNW 1/4" X 5/8" SS		16
50	H-71017	FW 3/8" X 7/8" SS		4
51	H-71021	FW 1/2" USS		4
52	H-71065	LW 5/16" SS		4
53	H-72605	PPH 1/4-20 X 2-1/2" SS		2
54	H-76063	FW 3/8" NYLON		6
55	H-95611	FW 1/2" PVC		4
56	H-NJ05C	JNYL 5/16"- 18 SS		4

*** SEE COMMON WEAR PARTS FOR SQUEEGEE KIT PART #'S, PAGE 4-1**

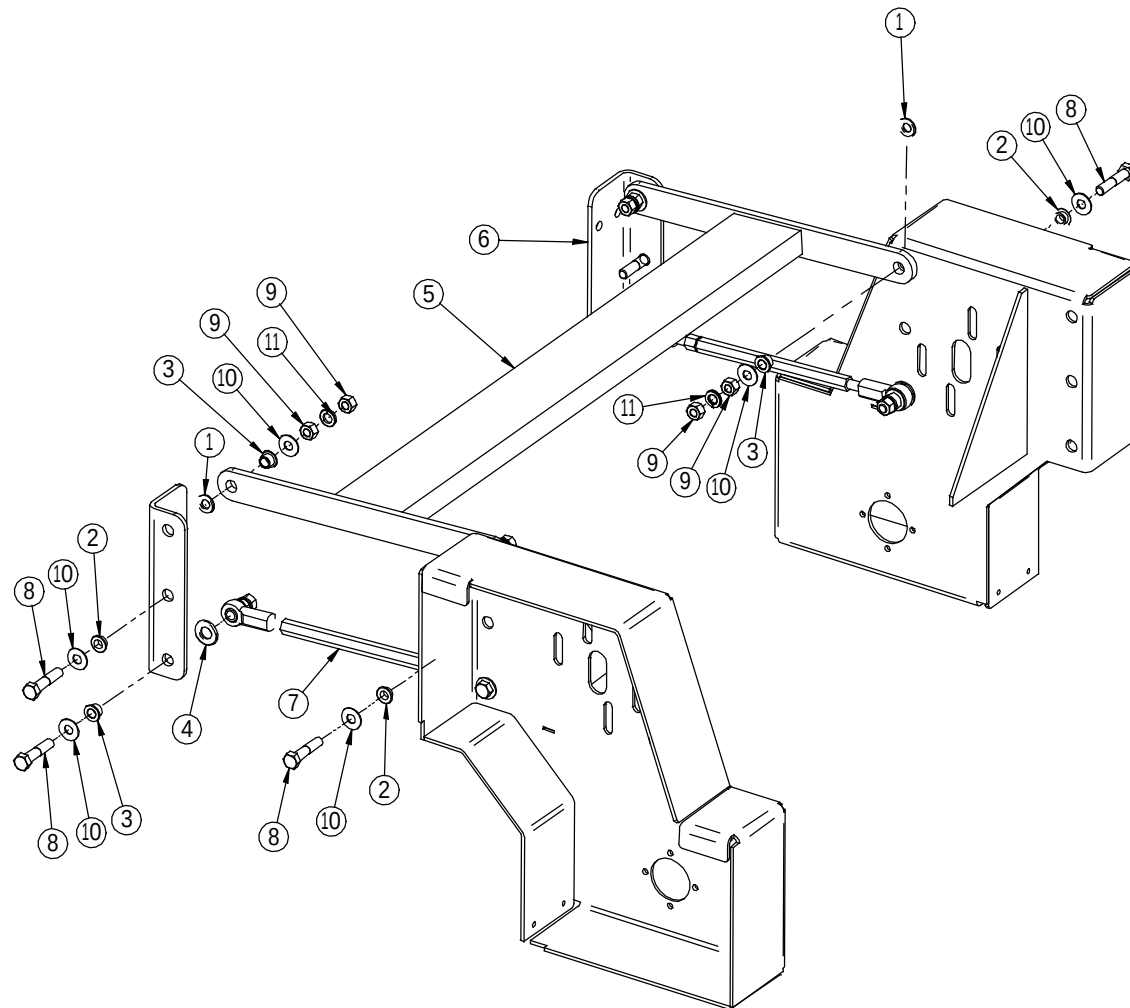
SIDE BROOM ASS'Y



SIDE BROOM ASS'Y

Item	Part Number	Title	Comments	Qty
1	290-4450	SIDE BROOM DRIVE SHAFT		2
2	290-8750	SIDE BROOM MOTOR MOUNT		2
3	390-2210	ACTUATOR		1
4	390-4420	SIDE BROOM LIFT ARM (LH)		1
5	390-4421	SIDE BROOM LIFT ARM (RH)		1
6	390-4620	SIDE BROOM SUSPENSION AXLE SHAFT		1
7	390-4630	AXLE SUPPORT BRACKET		1
8	4-352	BEARING		2
9	4-364A	FLANGE, 1.75" ID		4
10	4-402	SIDE BROOM POLYPROPYLENE		2
11	4-444	BROOM SAFETY DRIVE CPLG		2
12	4-445C	DRIVE TUBE BEARING		4
13	4-446	GROMMET-3/8 ID X 1-1/2 OD X .375		8
14	430-2200	SIDE BROOM MOTOR		2
15	H-0129158	JNYL 3/8- 16 SS		8
16	H-10832	HCS 5/16"- 18 X 3 1/2"		2
17	H-13011	HCS 1/4"- 20 X 2"		1
18	H-21253	CB 5/16"- 18 X 3/4"		6
19	H-33080	FW 5/16" SAE		6
20	H-33207	FW 1/4" X 1"		2
21	H-33213	FW 5/16" X 1 1/4"		4
22	H-37020	JNYL 1/4" - 20		3
23	H-70103	HCS 3/8"-16 X 3/4" SS		8
24	H-70710	HN 1/4"- 20 SS		1
25	H-70711	HN 5/16"- 18 SS		6
26	H-71063	LW 1/4" SS		7
27	H-71065	LW 5/16" SS		8
28	H-71067	LW 3/8" SS		8
29	H-76061	FW 1/4" NYLON		2
30	H-77010	HCS 1/4"- 20 X 1.75" SS		1
31	H-82550	HCS M6-10 X 14 SS		6
32	H-NJ04C	JNYL 1/4" - 20 SS		1
33	H-NJ05C	JNYL 5/16"- 18 SS		6

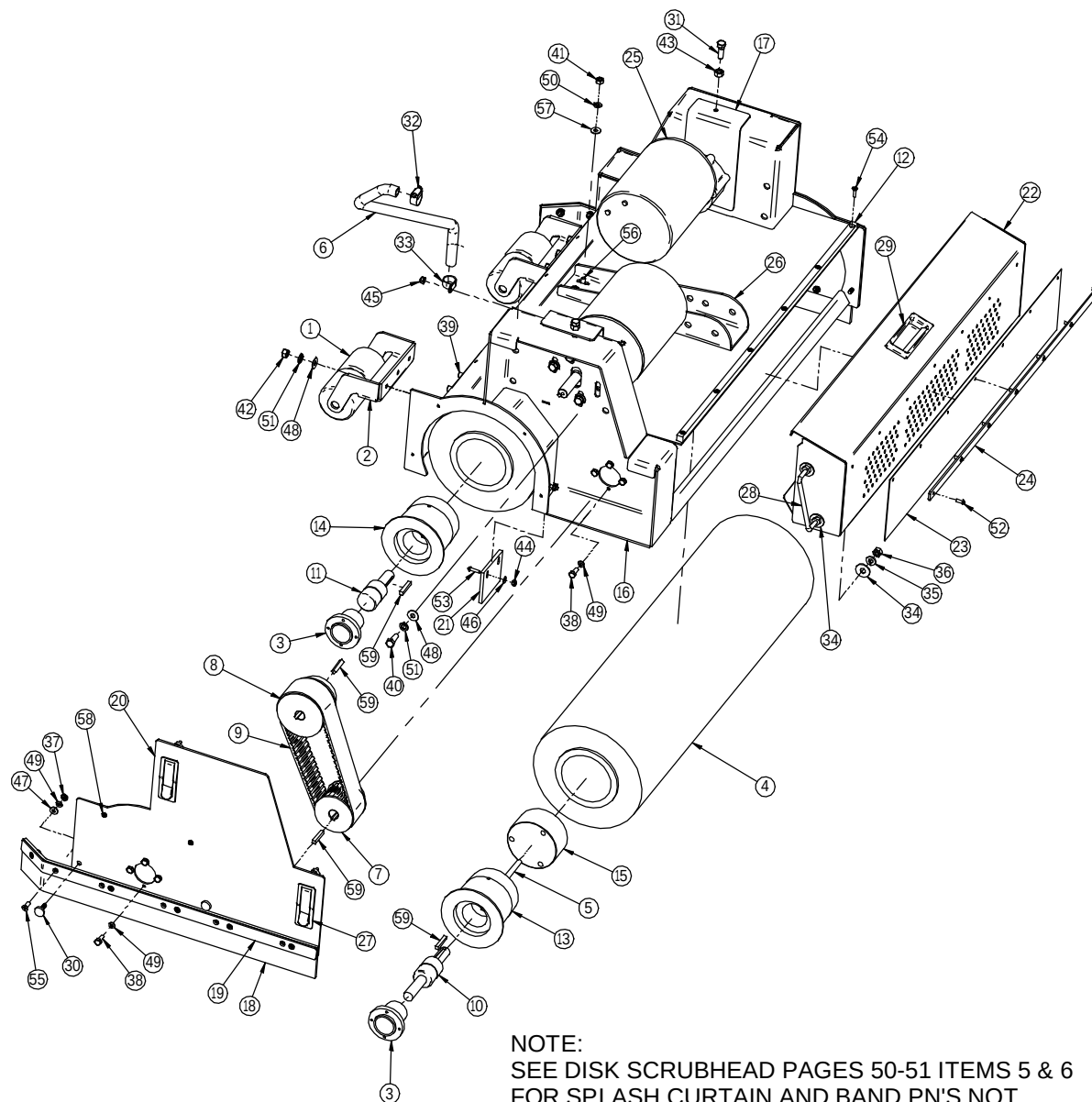
CYLINDRICAL ARM ASSEMBLY



CYLINDRICAL ARM ASSEMBLY

Item	Part Number Model 390	Part Number Model 420/430	Title	Qty
1	290-1237		FW BRONZE .75 OD X .375 IDX .125 THK	4
2	290-1243		3/8" ID, 1/2" OD, 1/4" LG BEARING	4
3	290-1245		3/8" ID, 1/2" OD, 3/8" LG, FLANGE BEARING	8
4	290-1248		FW BRONZE .500 ID X 1.00 OD X .125 THK	4
5	390-9586	430-9586	LATERAL LIFTING ARM	1
6	430-1265		SCRUB ARM BRACKET	2
7	430-4026		ADJUSTABLE LATERAL ARM	2
8	H-70110		HCS 3/8"- 16 X 1-3/4" SS	8
9	H-70712		HN 3/8"-16 SS	16
10	H-71017		FW 3/8" X 7/8" SS	16
11	H-71067		LW 3/8" SS	8

CYLINDRICAL ASSEMBLY

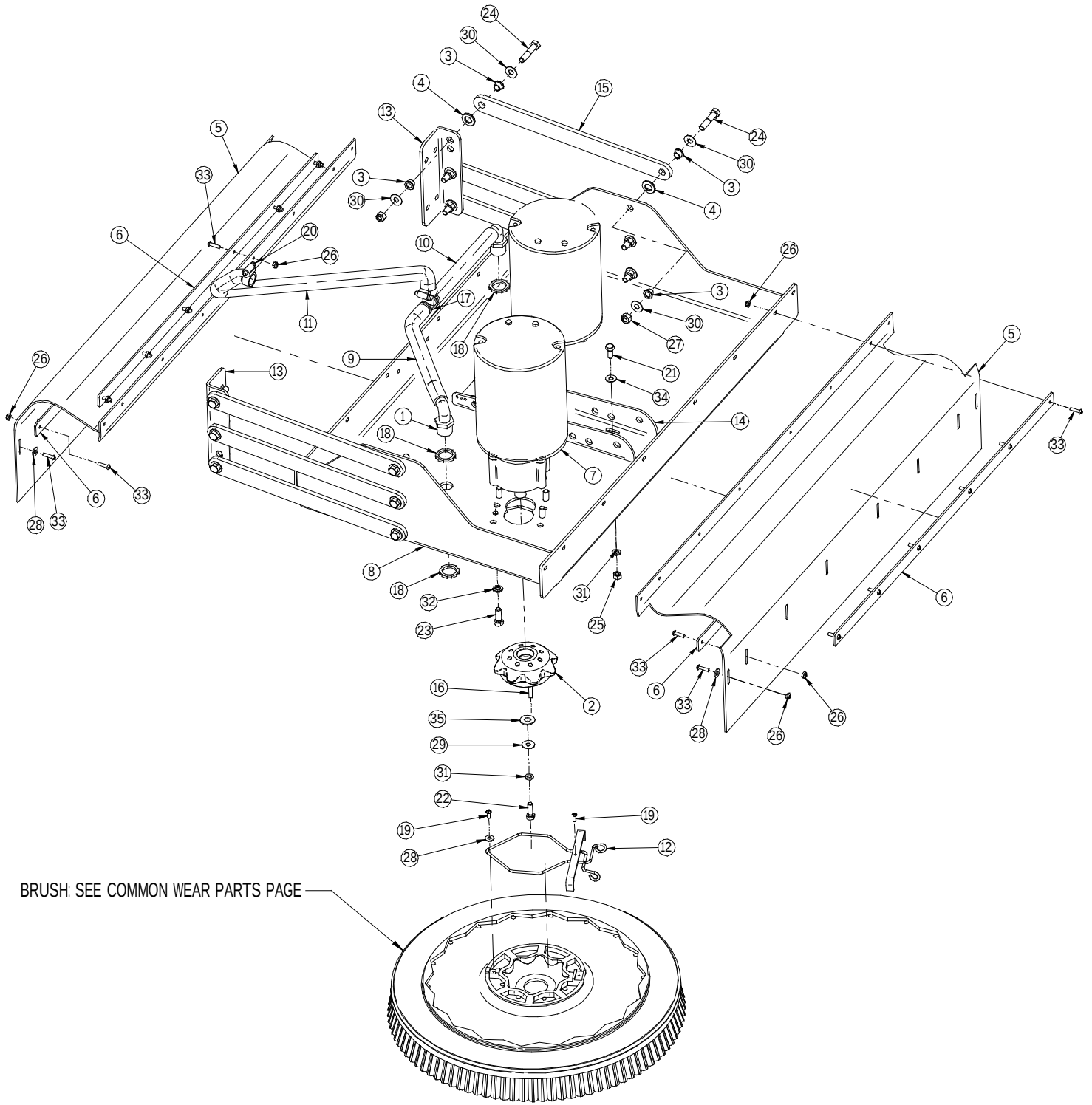


NOTE:
SEE DISK SCRUBHEAD PAGES 50-51 ITEMS 5 & 6
FOR SPLASH CURTAIN AND BAND PN'S NOT
SHOWN ON THIS PAGE.

CYLINDRICAL ASSEMBLY

Item	Part Number Model 390	Part Number Model 420/430	Title	Comments	Qty
1	21-1127		ROLLER		4
2	390-1128		ROLLER BRACKET		2
3	390-3050		BEARING HOUSING		4
4	390-521	430-521	BRUSH	390-521 = 36" CYL 430-521 = 42" CYL	2
5	390-8009		STUD 3/8"- 16 X 2 1/4" SS		6
6	390-8010		5/8" ID X 7/8" OD X 40" CLEAR TUBE		1
7	390-8210		TIMING SPROCKET - SMALL		2
8	390-8220		TIMING SPROCKET - LARGE		2
9	390-8230		DRIVE BELT		2
10	390-8240		DRIVE BEARING		2
11	390-8245		IDLER BEARING		2
12	390-8320	430-8320	HOPPER RAIL	390-8320 = 36" CYL 430-8320 = 42" CYL	1
13	390-8370		BRUSH DRIVER		2
14	390-8380		BRUSH IDLER		2
15	390-8390		INTERNAL BROOM DRIVER		2
16	390-9000	430-9000	CYLINDRICAL BRUSHHEAD	390-9000 = 36" CYL 430-9000 = 42" CYL	1
17	390-9002		MOTOR ADJ BRACKET		2
18	390-9010		SIDE CURTAIN		2
19	390-9015		WIPER BAND		2
20	390-9021		DRIVE COVER		2
21	390-9025		FLAP		2
22	390-9050	430-9050	HOPPER	390-9050 = 36" CYL 430-9050 = 42" CYL	1
23	390-9060		HOPPER SPLASH SHIELD		1
24	390-9070		SPLASH SHIELD HOPPER STRIP		1
25	430-2220		MOTOR 36V 15 HP X 350 RPM		2
26	430-4021		SCRUBDECK LIFT BRACKET		1
27	5-130		DOOR LATCH		4
28	5-834		HOPPER HANDLE		1
29	5-849		RECESSED HANDLE		1
30	7-420B		1/4-20 X 3/4" W/KNOB		4
31	H-01219		HCS 3/8"- 24 X 1 1/8" SS		2
32	H-081		CLAMP 7/16"- 25/32" SS		1
33	H-3225717		#14 RUBBER LOOP CLAMP		1
34	H-33008		FW 3/8" SAE		4
35	H-33622		LW 3/8"		2
36	H-36106		HN 3/8"-16		2
37	H-37020		JNYL 1/4" - 20		12
38	H-70003		HCS 1/4"- 20 X 3/4" SS		16
39	H-70103		HCS 3/8"-16 X 3/4" SS		6
40	H-70105		HCS 3/8"- 16 X 1" SS		8
41	H-70711		HN 5/16"- 18 SS		4
42	H-70712		HN 3/8"-16 SS		6
43	H-70732		HN 3/8"- 24 SS		4
44	H-70858		NYLOK #10-32 SS		4
45	H-70860		NYLOK 1/4"- 20 SS		1
46	H-71009		FW #10 SS		4
47	H-71013		FW 1/4" X 5/8" SS		4
48	H-71017		FW 3/8" SS		14
49	H-71063		LW 1/4" SS		28
50	H-71065		LW 5/16" SS		4
51	H-71067		LW 3/8" SS		14
52	H-72563		RPH #10-32 X 1/2" SS		7
53	H-72565		RPH #10-32 X 3/4" SS		4
54	H-72684		FHP 10-32 X 3/4" SS		6
55	H-72716		FHP 1/4"- 20 X 3/4"		12
56	H-73779		BHSCS 5/16"-18 X 3/4"		4
57	H-78015		FW 5/16" X 3/4" SS		4
58	H-79041		SHCS 1/4-20 X 1/2 SS		4
59	H-98870		1/4" X 1-1/2" KEY		10

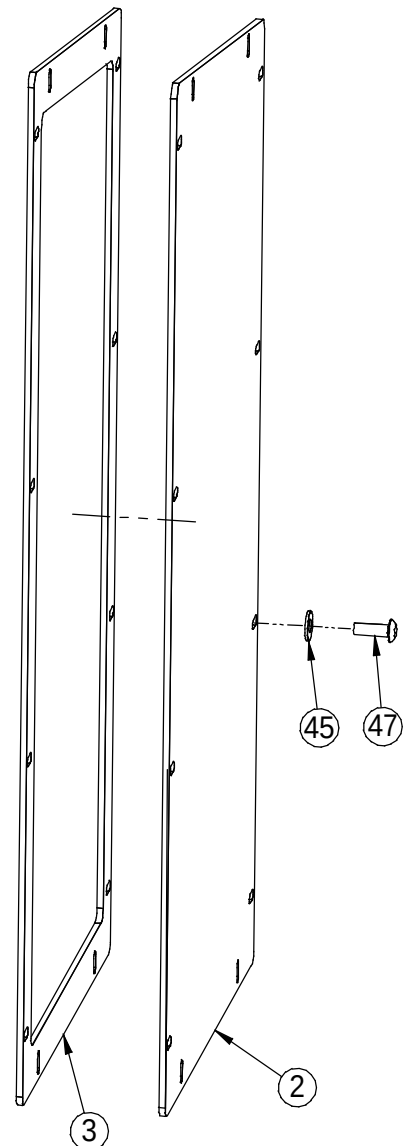
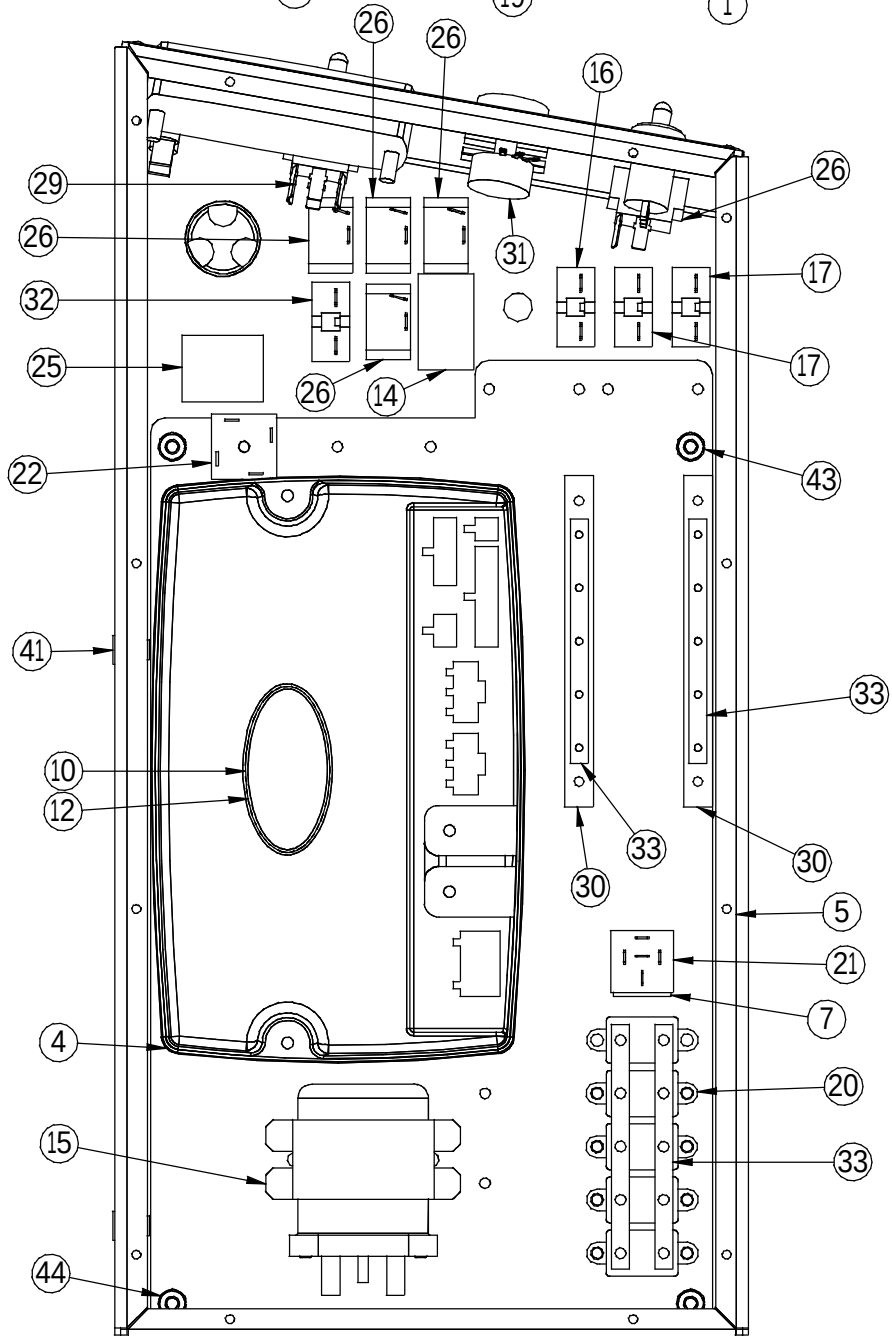
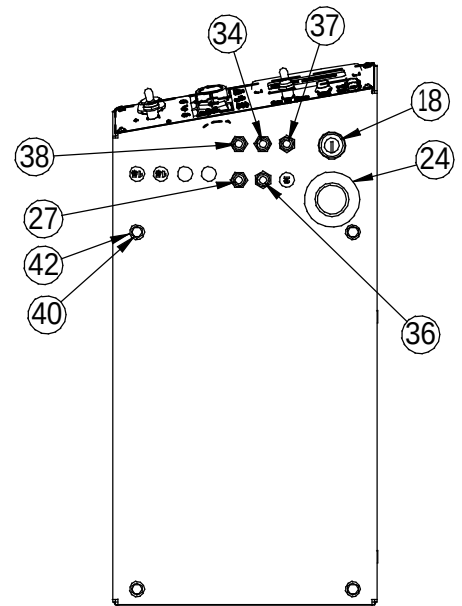
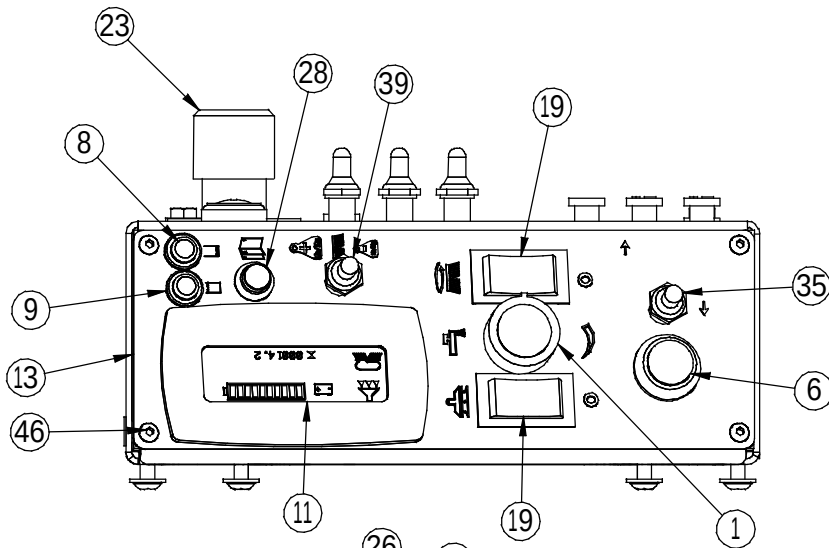
DISK SCRUBHEAD ASSEMBLY



DISK SCRUBHEAD ASSEMBLY

Item	Part Number	Title	Comments	Qty
1	21-4044	3/4" NPT TO 3/4" BARBED ELBOW		2
2	21-5000	BRUSH DRIVER		2
3	290-1245	3/8" ID, 1/2" OD, 3/8" LG, FLANGE BEARING		24
4	290-1248	FW BRONZE 1/2" ID X 1" OD X 1/8" TH		10
5	390-1310	DECK CURTAIN		2
6	390-1320	SPLASH CURTAIN MTG STRIP		4
7	390-2222	MOTOR 36V 1.0 HP X 200 RPM		2
8	390-4020	SCUB HEAD PLATFORM		1
9	390-8011	5/8" ID X 7/8" OD X 10" LG CLEAR TUBE		1
10	390-8012	5/8" ID X 7/8" OD X 8" LG CLEAR TUBE		1
11	390-8013	5/8" ID X 7/8" OD X 40" CLEAR HOSE		1
12	40-423	BRUSH REPAIR KIT	(INCLUDED W/BRUSH)	2
13	430-1265	SCRUB ARM BRACKET		2
14	430-4021	SCRUBDECK LIFT BRACKET		1
15	430-4025	LATERAL ARM		6
16	5-431A	1/4" X 1" KEY		2
17	H-02930	3/4 " PLASTIC BARB TEE		1
18	H-0700596	3/4" NPT LOCKNUT		3
19	H-29048	RPH #10-32 X 1/2"		4
20	H-62005	CLAMP 5/8"- 1-1/2" SS		2
21	H-70053	HCS 5/16"- 18 X 3/4" SS		4
22	H-70055	HCS 5/16"- 18 X 1" SS		2
23	H-70105	HCS 3/8"- 16 X 1" SS		8
24	H-70110	HCS 3/8"- 16 X 1-3/4" SS		12
25	H-70711	HN 5/16"- 18 SS		4
26	H-70858	NYLOK #10-32 SS		28
27	H-70862	NYLOK 3/8"-16 SS		12
28	H-71013	FNW 1/4" X 5/8" SS		5
29	H-71016	FW 5/16" X 7/8" SS		2
30	H-71017	FW 3/8" X 7/8" SS		24
31	H-71065	LW 5/16" SS		6
32	H-71067	LW 3/8" SS		8
33	H-72565	RPH #10-32 X 3/4" SS		28
34	H-78015	FW 5/16" X 3/4" SS		4
35	H-99001	FW 3/8" SS		2

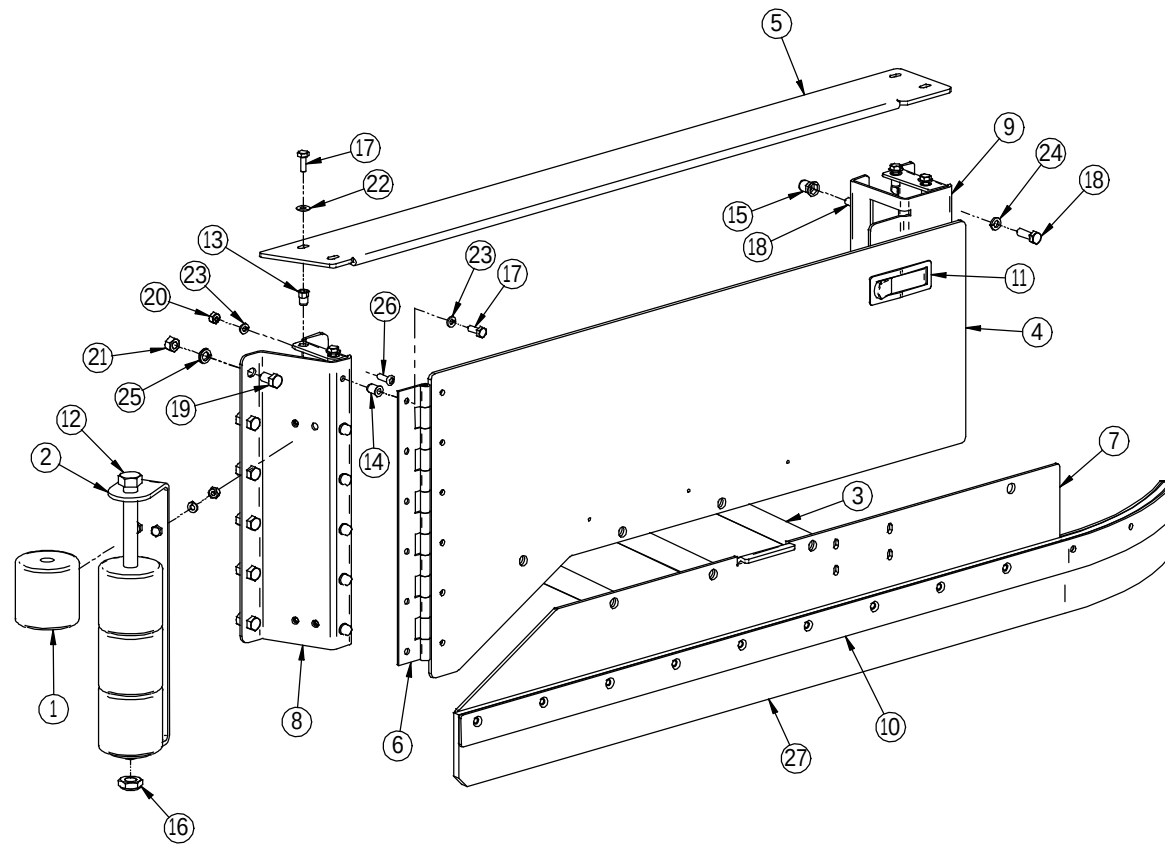
CENTRAL COMMAND II



CENTRAL COMMAND II

Item	Part Number	Part Description	Comments	Qty
1	21-4510	SOLUTION CONTROL KNOB, BLUE		1
2	290-2001	ACCESS COVER		1
3	290-2004	ACCESS COVER GASKET		1
4	290-2006	HARDWARE PANEL		1
5	290-2010	CONTROL PANEL		1
6	290-2015	ONE TOUCH BUTTON		1
7	290-2020	BRACKET		1
8	290-2300	LOW SOLUTION (AMBER)	LOW SOLUTION	1
9	290-2310	FULL RECOVERY (RED)	HIGH RECOVERY	1
10	290-2890	COMPUTER CONTROL V2		1
11	290-2891	LCD SCREEN	USED ON MACHINES WITH SERIAL # 390-2901 OR GREATER	1
12	290-2899	COMPUTER CONTROL V3		1
13	390-2013	CONTROL PANEL TOP PLATE	USED ON MACHINES WITH SERIAL # 390-2900 OR LOWER	1
14	390-2329	SWITCH, TOGGLE, ON/ON (DPDT) 30 AMP	SIDE BROOMS	1
15	390-2331	36V 200 AMP RELAY		1
16	390-9610	FUSE, RESETTABLE, 10 AMP, 50V DC MAX	SIDE BROOMS	1
17	390-9615	FUSE, RESETTABLE, 15 AMP, 50V DC MAX	+/- BUS BAR	2
18	4-234	KEY SWITCH		1
19	5-234	SWITCH, ROCKER, DPDT, ON/ON		3
20	5-289	CIR BREAKER 24V 50A		5
21	5-293	15 AMP RELAY		1
22	5-296	DIODE BRIDGE		1
23	5-300	EMERGENCY SHUT OFF		1
24	5-301	EMERGENCY LEGEND PLATE		1
25	5-302	EMERGENCY CONTACT BLACK		1
26	5-892	TOGGLE, ON-OFF SPST		5
27	5-892A	PROTECTIVE BOOT, TOGGLE SWITCH, (GRAY)		1
28	7-229	PUSH BUTTON SWITCH		1
29	7-283	SWITCH, TOGGLE, MOM/OFF/MOM (DPDT)		1
30	7-287	BUSS BAR UHMW		2
31	7-292	5K POTENTIOMETER		1
32	7-837	FUSE RESETTABLE 2 AMP		1
33	E-5HBB	5 HOLE BUSS BAR		4
34	H-01195	PROTECTIVE BOOT, TOGGLE SWITCH, (WHITE)		1
35	H-01196	PROTECTIVE BOOT, TOGGLE SWITCH, (RED)		1
36	H-01197	PROTECTIVE BOOT, TOGGLE SWITCH, (YELLOW)		1
37	H-01198	PROTECTIVE BOOT, TOGGLE SWITCH, (GREEN)		1
38	H-01199	PROTECTIVE BOOT, TOGGLE SWITCH, (BLUE)		1
39	H-01200	PROTECTIVE BOOT, TOGGLE SWITCH, (BLACK)		1
40	H-13005	HCS 1/4"-20 X 1"		4
41	H-250HCN	HCN 1/4"-20		2
42	H-33078	FW 1/4" SAE		4
43	H-33618	LW 1/4"		4
44	H-36102	HN 1/4"-20		12
45	H-71013	FNW 1/4" X 5/8" SS		12
46	H-73743	BHSCS 10-32 X 1/2" SS		4
47	H-73754	BHSCS 1/4 - 20 X 3/4" SS		12

DOOR/WIPER/ROLLER ASSEMBLY



NOTE HINGE, DOOR, ARMS, & WIPER GET ASSEMBLED EXACTLY THE
SAME AS SHOWN ON PAGES 38-39.
*NOT ALL PARTS ARE SHOWN ON THIS PAGE

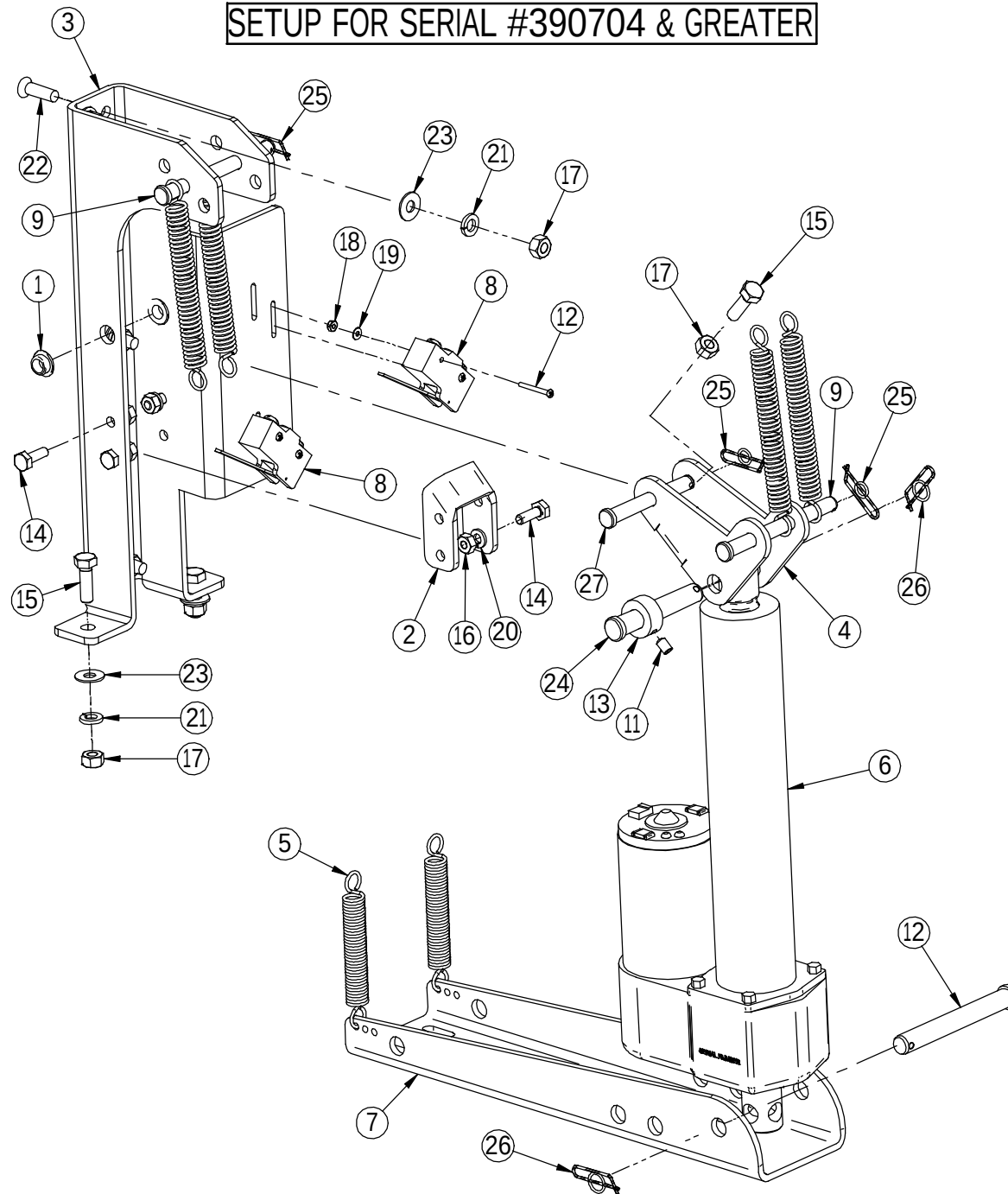
DOOR/WIPER/ROLLER ASSEMBLY

Item	Part Number	Title	Comments	Qty
1	21-1127	ROLLER		4
2	290-1126	ROLLER BRACKET		1
3	390-1050	WIPER ARM		3
4	390-1220	DOOR		1
5	390-1290	LH POD TOP SUPPORT	RH POD TOP SUPPORT = PN 390-1291	1
6	430-1225	13" SS HINGE		1
7	430-1240	LEFT WIPER	RIGHT WIPER = PN 430-1241	1
8	430-1270	FRONT LH POD	FRONT RH POD = PN 430-1271	1
9	430-1280	REAR POD LH	REAR POD RH = PN 430-1281	1
10	430-4040	WIPER BAND, LH		1
11	5-130	DOOR LATCH		1
12	H-13337	HB 5/8" - 11 X 13"		1
13	H-250HCN	HCN 1/4" -20		4
14	H-250RCN	RCN 1/4" - 20		6
15	H-312HCN	HCN 5/16"-18		4
16	H-37038	JNYL 5/8" - 11		1
17	H-70003	HCS 1/4" - 20 X 3/4" SS		14
18	H-70055	HCS 5/16" - 18 X 1" SS		4
19	H-70103	HCS 3/8"-16 X 3/4" SS		6
20	H-70710	HN 1/4" - 20 SS		10
21	H-70712	HN 3/8"-16 SS		6
22	H-71013	FW 1/4" X 5/8" SS		4
23	H-71063	LW 1/4" SS		16
24	H-71065	LW 5/16" SS		4
25	H-71067	LW 3/8" SS		6
26	H-73754	BHSCS 1/4 - 20 X 3/4 SS		6
27	SEE COMMENTS	WIPER BLADE	430-4035G, WIPER BLADE, GUM RUBBER 430-4035L, WIPER BLADE, LINATEX	1 SET OF 2

NOTE: RIGHT SIDE DOOR/WIPER/ROLLER ASSEMBLY
USE THE SAME PARTS EXCEPT ITEMS 6,8,9,10.
QTY'S ABOVE ARE FOR ONE SIDE ONLY

SCRUBHEAD LIFT ASSEMBLY

SETUP FOR SERIAL #390704 & GREATER



SCRUBHEAD LIFT ASSEMBLY

SETUP FOR SERIAL #390704 & GREATER

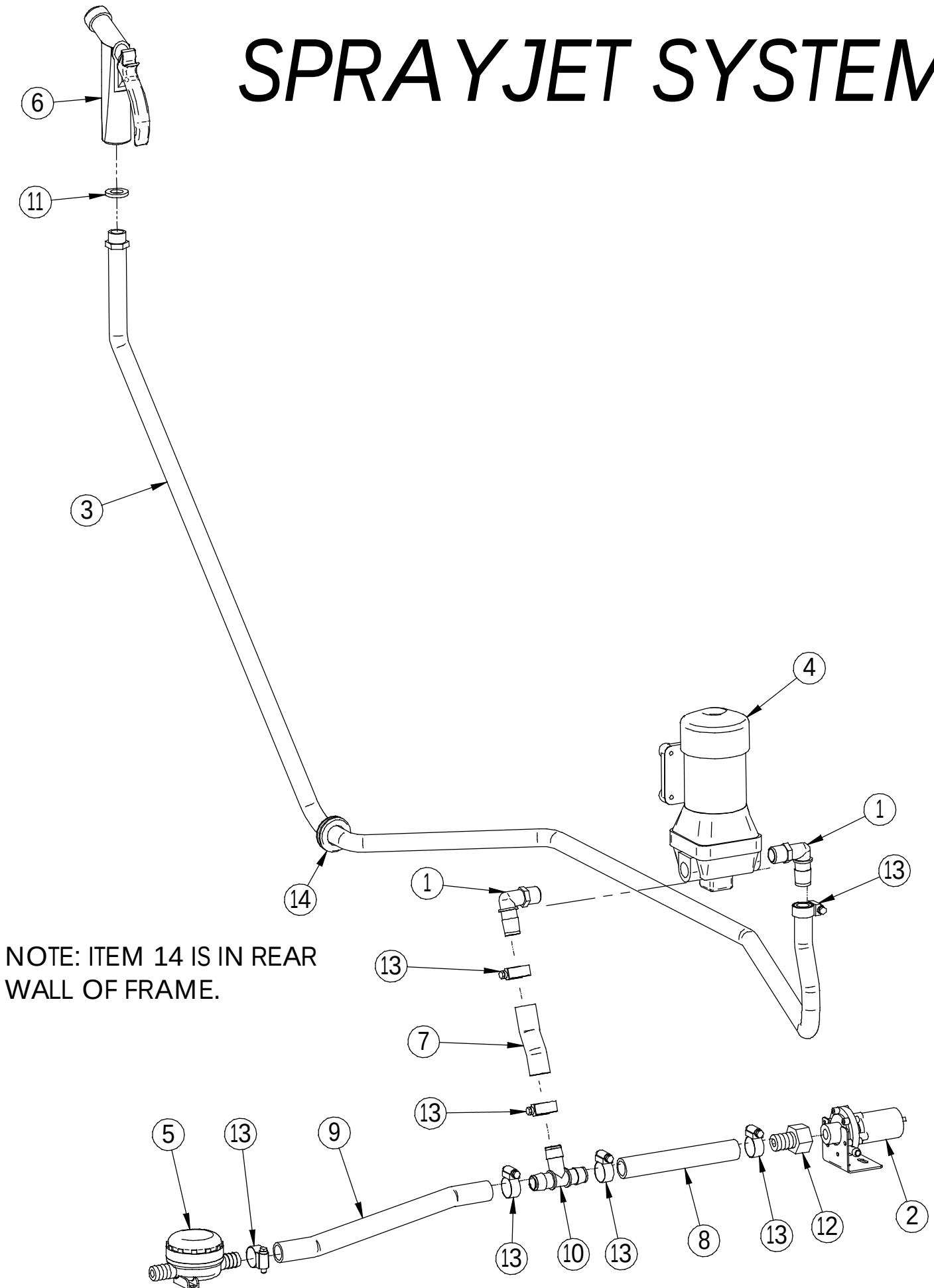
Item	Part Number	Title	Comments	Qty
1	290-1243	3/8" ID, 1/2" OD, 1/4" LG BEARING		2
2	32-1083	ACTUATOR MTG BRACKET		1
3	390-1081	ACTUATOR ANCHOR		1
4	390-1082	ACTUATOR ARM		1
5	390-7712	COMPRESSION SPRING		6
6	430-2210	ACTUATOR, (201) LONG BARREL		1
7	430-4021	SCRUBDECK LIFT BRACKET		1
8	5-223	LIMIT SWITCH		2
9	H-00135	3/8" X 4-1/2" CLEVIS PIN		2
10	H-02783	1/2" X 4" CLEVIS PIN		1
11	H-25328	SSS CP 1/4"-20 X 3/8"		1
12	H-28679	PPH #4-40 X 1"		4
13	H-33374	SHAFT COLLAR, 1/2" ID		1
14	H-70003	HCS 1/4"- 20 X 3/4" SS		4
15	H-70055	HCS 5/16"- 18 X 1" SS		3
16	H-70710	HN 1/4"- 20 SS		4
17	H-70711	HN 5/16"- 18 SS		9
18	H-70854	NYLOK #4-40 SS		4
19	H-71004	FW #4 X .3125 SS		4
20	H-71063	LW 1/4" SS		4
21	H-71065	LW 5/16" SS		8
22	H-73908	FHSCS 5/16"- 18 X 1-1/4" SS		6
23	H-78015	FW 5/16" X 3/4" SS		8
24	H-CP238	1/2" X 3" CLEVIS PIN		1
25	H-RUE14	3/8" RUE RING COTTER		4
26	H-RUE22	1/2" RUE RING COTTER		2
27	H-ZCP176	CLEVIS PIN 3/8" x 3.00"		1

This exploded view diagram illustrates the assembly of a mechanical component, likely a pump or valve. The parts are numbered 1 through 25. The assembly includes a main housing (3), a motor or actuator (5), and various internal components like gears (12, 14, 18), shafts (6, 17), and seals (13, 15). A large rectangular plate (3) is shown at the bottom, with mounting holes and slots. The diagram shows the relative positions and assembly sequence of the parts, with dashed lines indicating alignment and fit.

SIDE BROOM WATER OPTION

Item	Part Number	Part Description	Qty
1	21-4030	CLEAR TUBE, 1/2" ID	1
2	21-4030	CLEAR TUBE, 1/2" ID	1
3	390-4000	RECYCLING SYSTEM MOUNTING PLATE	1
4	390-7245	ADJ SOLUTION FLOW VALVE, 36V	1
5	390-8500	PUMP 36V DC (OPTIONAL)	1
6	B-033	CLEAR TUBE, 1/4" ID	1
7	B-033	CLEAR TUBE, 1/4" ID	1
8	H-014	CLEAR TUBE, 3/8" ID	1
9	H-017	CLEAR TUBE, 5/8" ID	1
10	H-017	CLEAR TUBE, 5/8" ID	1
11	H-017	CLEAR TUBE, 5/8" ID	1
12	H-081	CLAMP 7/16"- 25/32" SS	4
13	H-54631	5/16" BARBED ELBOW	1
14	H-54634	5/8" to 3/8" COUPLING	2
15	H-54635	1/2 X 1/2 X 90 BARBED ELBOW, NYLON	1
16	H-5466	1/2" to 5/8" COUPLING	1
17	H-62002	HOSE CLAMP, #4 S/S	3
18	H-62005	CLAMP 5/8"- 1-1/2" SS	2
19	H-62005	HOSE CLAMP 5/8"- 1-1/2" SS	5
20	H-63003	SWIVEL ADAPTER, 3/4" FEMALE NPT X 1/2" BARB	1
21	H-70001	HCS 1/4"-20 X 1/2 SS"	2
22	H-70003	HCS 1/4"- 20 X 3/4" SS	2
23	H-70710	HN 1/4"- 20 SS	4
24	H-71013	FW 1/4" X 5/8" SS	2
25	H-71063	LW 1/4" SS	4

SPRAYJET SYSTEM



SPRAYJET SYSTEM

Item	Part Number	Part Description	Qty
1	21-1602	3/4 BARB ELBOW	2
2	390-8500	PUMP 36V DC (OPTIONAL)	1
3	390-8960	HOSE, BLUE 24'	1
4	430-8910	PUMP, WATER JET, 36V	1
5	430-9130	INLINE FILTER	1
6	5-895	SPRAY NOZZLE	1
7	H-015	CLEAR HOSE, 3/4" ID x 4" LG	1
8	H-015	CLEAR HOSE, 3/4" ID x 6" LG	1
9	H-015	CLEAR HOSE, 3/4" ID x 12-1/2" LG	1
10	H-02930	3/4 " PLASTIC BARB TEE	1
11	H-0491686	.625 ID X 1.125 OD RUBBER WASHER	1
12	H-53722	ADAPTER, 3/4" NPT X 3/4" BARB	1
13	H-62005	CLAMP 5/8"- 1-1/2" SS	7
14	H-9307K74	GROMMET, 1" ID X 1-3/4" OD BUNA-N	1